

## AUTHOR INDEX

### A

- Aasland R, 90  
 Aalen RB, 640  
 Aaltonen LA, 36, 41  
 Aarsaether N, 90  
 Aarts MG, 420, 424  
 Abad MS, 637, 638  
 Abbott MT, 247, 257  
 Abe H, 302  
 Abramovitz M, 130  
 Abrams SR, 397  
 Abu-Qaoud H, 371  
 Acedo GN, 514, 524, 585, 586  
 Acevedo E, 378  
 Adam E, 219  
 Adams H, 334  
 Adams MD, 597, 598  
 Adams P, 169  
 Adams PB, 204  
 Adams WW, 217  
 Adams WW III, 656, 659-61, 665, 666, 669, 672, 674, 675  
 Adamse P, 219  
 Adamska I, 384, 692, 701  
 Adesnik M, 246  
 Adrian GS, 601  
 Aebersold R, 689-93, 702  
 Aegerter M, 547, 548  
 Afsar K, 25  
 Agata K, 545  
 Agrawal VP, 410, 412, 415  
 Agre P, 178, 179  
 Aguilar M, 259  
 Ahmad M, 84, 218, 220, 225, 227, 228  
 Ahnad H, 135, 138  
 Aigle M, 598  
 Aitken A, 50, 52-58, 62, 65, 66, 68  
 Aitken JR, 645  
 Akashi T, 310  
 Aken SF-V, 547, 548  
 Akerlund H-E, 692, 693  
 Akin DE, 469  
 Alam R, 54, 55, 61  
 Alamillo JM, 394  
 Alb JG Jr, 645  
 Albá MM, 379, 386, 394  
 Albano M, 420, 424  
 Albaugh GP, 512  
 Albericio F, 395  
 Albersheim P, 142, 446, 448, 450, 451  
 Albert F, 145  
 Albert HA, 289  
 Albertsen MC, 260, 264  
 Albertsson P-Å, 480, 482, 703, 704  
 Albig W, 526  
 Albone KS, 254  
 Albrecht AC, 667  
 Alderson A, 526, 586  
 Alessi DR, 105  
 Alexander D, 640  
 Alexandre J, 176, 177  
 Alfinito MR, 130, 136, 139, 141, 142, 150  
 Alfonso M, 688  
 Ali A, 318  
 Ali BR, 137, 139  
 Aljinovic G, 598  
 Al-Khodairy F, 52, 54, 55, 63  
 Allan DL, 193  
 Allen GJ, 174, 177  
 Allen JF, 115, 480, 483, 693, 703  
 Allen KD, 691, 693, 697  
 Allen R, 161, 578  
 Allsopp MTEP, 699  
 Almeida J, 89  
 Almira EC, 512, 518, 524  
 Almoguera C, 383, 385, 386  
 Aloni R, 300, 301, 304, 311, 316  
 Alpi A, 192  
 Alred R, 440  
 Alscher RG, 132, 145, 146  
 Alseth I, 86  
 Altabella T, 520  
 Altherr S, 464  
 Altschmied L, 220, 225, 229  
 Altschuler M, 260  
 Altschuler Y, 329, 331, 332, 334, 344  
 Amano Y, 255, 260, 264  
 Amasino RM, 25, 525  
 Ambros PF, 30  
 Amelunxen F, 340  
 Ames GFL, 596  
 Amess B, 53, 58  
 Amodeo G, 171, 176  
 Amor Y, 447, 465  
 Amrhein N, 129, 150, 178, 340, 597  
 Amselem J, 645  
 Amundson RG, 82  
 Amzallag GN, 287  
 Amzel LM, 262-64  
 An G, 511, 517  
 Anandan S, 686, 692, 693, 695  
 Anderberg RJ, 381, 394  
 Andersen AH, 55, 65  
 Andersen B, 704  
 Anderson AJ, 145  
 Anderson CM, 610  
 Anderson JA, 596, 659, 675, 678  
 Anderson JM, 176, 196, 660, 661, 675, 676, 686, 693, 697, 698, 700, 701, 703  
 Anderson JV, 333  
 Anderson LE, 201, 202, 207  
 Anderson ME, 132, 145, 146  
 Anderson ML, 81, 220, 225, 230  
 Anderson MP, 139, 577  
 Anderson RGW, 335  
 Anderson RL, 191  
 Anderson SL, 217  
 Anderson VE, 277  
 Anderson WP, 10  
 Andersson B, 480, 555, 557, 675, 676, 687, 691-93, 702, 703, 705  
 Andersson PO, 667  
 André B, 598-600  
 Andrae WA, 143, 144  
 Andreasson E, 703, 704  
 Andreo CS, 198, 200, 206, 275, 277, 280, 282, 285, 287  
 Andrews DL, 201, 207  
 Andrews JR, 670  
 Andrews L, 599  
 Andrews M, 572  
 Andrews PD, 103-5  
 Ang L-H, 227, 230, 231  
 Angelino SAGF, 447  
 Angelis K, 85  
 Angenent GC, 27  
 Anwar HP, 488  
 Anzani P, 164, 168  
 Aoki T, 304  
 Aoshima H, 612, 613, 615  
 Aoyama H, 479  
 Apel K, 454  
 Appleford NEJ, 248, 252, 256, 260  
 ap Rees T, 186, 187, 191-94, 196, 197, 199, 205, 433  
 Apse MP, 169, 170

## 716 AUTHOR INDEX

- Apt KE, 700  
 Aquila H, 605  
 Aragón JJ, 206  
 Araki K, 51, 53, 55  
 Araki T, 220, 229, 234  
 Arata H, 178  
 Arbinger B, 601, 605  
 Arenas C, 391  
 Arias JM, 130  
 Ariño J, 106, 109, 114  
 Armaleo D, 371  
 Armstrong JE, 367  
 Aro E-M, 555, 557  
 Arondel V, 419, 547, 548,  
 628-30, 636-39, 641, 642  
 Arrio-Dupont M, 275, 281,  
 283, 285  
 Arruda P, 571, 578  
 Arsalane W, 698  
 Arst HN Jr, 571, 572  
 Arthur ED, 518, 524  
 Artus NN, 543, 559, 575  
 Arundhati A, 105, 106, 108  
 Arvai AS, 86  
 Asada K, 80, 464  
 Asard H, 257  
 Asato AE, 662, 667, 669, 671  
 Asghar R, 386, 394  
 Ashbaugh M, 219  
 Ashford AE, 451, 455  
 Ashihara H, 191, 193,  
 196-98  
 Ashraf M, 79  
 Ashworth EN, 419, 420  
 Askerlund P, 176  
 Aspinall GO, 446-48  
 Aspuria ET, 514  
 Assad FF, 25  
 Assad R, 257  
 Assmann C, 491, 493  
 Assmann SM, 113, 117, 118  
 Asther M, 629  
 Atkin O, 521  
 Atkins CA, 582  
 Audisio G, 409  
 Auffret AD, 483  
 Ausenhus SL, 275-78  
 Ausubel FM, 81, 219, 220,  
 222, 229, 231, 232, 260  
 Avato P, 407, 409, 412, 420,  
 422, 423, 425  
 Avery AG, 353  
 Avigne WT, 512, 514, 516,  
 524  
 Avila C, 578  
 Avila LR, 310  
 Awasthi YC, 132, 133, 135,  
 138  
 Awata H, 259  
 Axelrod B, 262, 263  
 Axelrod J, 262  
 Axtell JD, 420, 469  
 Axton JM, 105  
 Ayub RA, 249, 256  
 Azcon-Bieto J, 579  
 Azuma M, 545
- B**
- Baasiri RA, 453  
 Baburek I, 85  
 Bachmann M, 436-38, 440  
 Bacic A, 447, 450, 451, 454,  
 455, 458  
 Baclet MC, 598  
 Baga M, 391, 392  
 Bagby S, 488  
 Bagg A, 91  
 Bagga S, 334  
 Baier J, 519  
 Baier K, 600, 603  
 Bailey D, 102, 115  
 Baillet B, 630, 638  
 Baima S, 233  
 Bak J, 177  
 Baker A, 601  
 Baker CJ, 512, 514, 515,  
 525, 526, 530  
 Baker E, 418  
 Baker J, 379, 387, 559  
 Baker NR, 660-62, 670  
 Bakrim N, 275, 280, 281,  
 283, 285  
 Bakuleva NP, 167  
 Balagué C, 256, 260  
 Balch WE, 328  
 Bald D, 483, 676, 698, 704,  
 705  
 Baldwin JE, 249, 256, 260,  
 263  
 Baldwin SA, 607  
 Ball A, 645  
 Ballard LAT, 524  
 Ballas N, 138, 149  
 Ballesteros F, 617  
 Balogh A, 201  
 Balsevich JJ, 397  
 Balusek K, 342  
 Balzi E, 597  
 Bandurski RS, 144  
 Banerji U, 335  
 Bankaitis VA, 645, 647  
 Banks JA, 36, 37  
 Banno H, 526  
 Bany S, 585  
 Bao W, 310, 313  
 Baranski TJ, 336, 341  
 Barber J, 659, 678  
 Barber RF, 145, 147  
 Barbier-Brygoo H, 117, 118  
 Barceló AR, 313  
 Barkan A, 358  
 Barker JHA, 586  
 Barker RF, 574, 576  
 Barker SJ, 585  
 BARKLA BJ, 159-84; 164,  
 169, 170  
 Barros-Söderling J, 259  
 Barry C, 256, 260, 263  
 Barry P, 135, 138  
 Barsel SE, 227  
 BARTELS D, 377-403; 379,  
 381-84, 386, 388, 390-94,  
 396, 543, 559  
 Barthlott W, 408  
 Bartlett J, 250, 251  
 Bartling D, 130, 134, 138,  
 146, 147  
 Barton GJ, 247, 262, 263  
 Barwale-Zehr UB, 358  
 Barz W, 143, 512  
 Barzda V, 657  
 Baserga S, 38  
 Baskin TL, 117, 119, 227  
 Basner A, 434, 435, 437  
 Basrai MA, 599, 602  
 Bassham DC, 329, 342, 343  
 Bassham JA, 200, 204  
 Bassi R, 657, 658, 665, 678,  
 686, 688, 691-93, 697,  
 698, 704, 705  
 Baszczynski CL, 395  
 Bate NJ, 314  
 Batenburg AM, 560  
 Bathgate B, 601  
 Batschauer A, 84, 217, 218,  
 220, 228, 230  
 Baud F, 634  
 Baulcombe DC, 29  
 Baum BR, 190  
 Baum SF, 301  
 Baumgartner C, 315  
 Bäumlein H, 512, 514  
 Baur B, 275, 281  
 Baur E, 353  
 Baur M, 89  
 Baur-Höch B, 524  
 Bauw G, 27, 383, 643  
 Baykov AA, 167  
 Bayon Y, 636  
 Baysdorfer C, 200, 204, 515,  
 519  
 Beach D, 108  
 Beachy RN, 368  
 Beale MH, 252, 265  
 Beaudry RM, 204  
 Bech LM, 635, 636  
 Bechtel DB, 331, 334, 344  
 Becker A, 164  
 Becker JM, 599, 602  
 Becker TW, 578, 585  
 Bedcraft PW, 364, 365  
 Beddard GS, 658, 672  
 Bedinger PA, 453  
 Bednarek SY, 328, 342, 343  
 Beecham EJ, 89

# AUTHOR INDEX 717

- Beenfeldt T, 635, 636  
 Beetham JK, 381  
 Beevers L, 342, 343  
 Beggs CJ, 83, 217, 225  
 Beggs K, 513, 517, 530  
 Beheke HD, 300  
 Behringer FJ, 231  
 Beld M, 27, 29  
 Bell E, 260, 381  
 Bell RM, 545  
 Bellemare G, 386  
 Belliard G, 435, 514, 516, 518  
 Beltrano J, 522, 524  
 Bendall DS, 479, 490, 493, 499, 501, 503  
 Benito M-I, 142  
 Bennett AB, 165  
 Bennett DC, 518  
 Bennett J, 115  
 Bennett MD, 468  
 Bennetzen JL, 369  
 Bennoun P, 480  
 Bentrup FW, 171, 176  
 Benz JEL, 38  
 Benzer S, 335  
 Beppu T, 542, 548  
 Beratan DN, 492, 493  
 Berberet RC, 407  
 Berdal KG, 86  
 Berden JA, 498  
 Bergelson S, 148  
 Bergen Henegouwen JBA, 85  
 Berger F, 355  
 Berger S, 480  
 Bergersen FJ, 582  
 Bergfeld R, 310, 316, 454, 462, 463, 466  
 Bergman DK, 407  
 Bergounioux C, 289  
 Bergqvist A, 110  
 Bergsdorf C, 454  
 Berhane K, 130, 139, 145, 146  
 Berkaloﬀ C, 698, 700  
 Berkau C, 137, 139  
 Berkelman T, 163  
 Berleth T, 303, 304  
 Bermadinger-Stabentheiner E, 419  
 Bernardi G, 35  
 Bernasconi P, 161  
 Bernatzky R, 361  
 Bernhard WR, 419, 629, 632, 637-39, 641  
 Bernier G, 524, 525  
 Berridge MJ, 177  
 Berry CA, 54, 55, 61  
 Berry EA, 482  
 Berry JA, 550, 553, 659  
 Bertauche N, 380, 390, 393, 397  
 Berthold D, 494  
 Bertl A, 171  
 Bertsch U, 53  
 Besford RT, 512, 514, 515, 520, 521  
 Bessoule J-J, 406, 415, 416, 647  
 Best TR, 218, 221, 227, 228  
 Bestor TH, 35  
 Bethke PC, 171, 176  
 Betts JN, 492, 493  
 Betts S, 692, 706  
 Bevan M, 315  
 Beverley MC, 130  
 Bewley JD, 379, 384  
 Bewley MC, 704  
 Beyer P, 249, 259  
 Beyreuther K, 598  
 Bhaya D, 686, 698, 700-2  
 Biancalana V, 41  
 Bianchi A, 423, 424  
 Bianchi G, 388, 407-9, 412, 420, 422, 423  
 Bianchi MW, 116, 586  
 Bidal S, 333  
 Bienkowska J, 67  
 Bierhorst DH, 358  
 Bilang J, 130, 135, 138, 143, 144  
 Bilger W, 664-66, 675  
 Binder A, 314, 452  
 Binding H, 357, 368  
 Binet MN, 90  
 Bingham UJ, 521  
 Bingham SE, 687, 688  
 Binzel ML, 165  
 Bird A, 33  
 Bird CR, 27, 28, 31  
 Bird IF, 572, 573  
 Bishop DG, 542  
 Bisson LF, 599, 602  
 Bittner M, 514, 518, 520, 524, 527  
 Bjelland S, 86  
 Björas M, 86  
 Björkman O, 659, 661, 664, 665, 674  
 Black CC, 186, 187, 190, 191, 200, 204, 518, 524  
 Black M, 224  
 Black MT, 479, 480, 499, 503  
 Black S, 103-5  
 Blackford S, 170  
 Blackshear PJ, 173  
 Blackwell BA, 450  
 Blackwell RD, 291, 571-73, 575, 578, 580  
 Blakeley SD, 186, 187, 190, 191, 195, 196, 202, 205  
 Blakeney AB, 451, 455  
 Blakeslee AF, 353  
 Blanchard JS, 247, 262  
 Blankenship RE, 667  
 Blatt MR, 117, 118, 176, 595  
 Blée E, 413, 417  
 Bleecker AB, 248, 252, 254, 265  
 Blein J-P, 118  
 Blevins DG, 584  
 Blevins WE, 369  
 Bligny R, 515, 521, 558, 584  
 Blobel G, 333  
 Blochet JE, 628, 633  
 Block MA, 636  
 Blomquist GJ, 411  
 Blond-Elguindi S, 332  
 Blum DE, 224, 233  
 Blum W, 171, 176  
 Blumwald E, 105, 109, 164, 169-72, 176, 178  
 Blundell RP, 637, 639, 640, 643  
 Blundell TL, 687  
 Board PG, 132, 133  
 Bodeau JP, 142, 149  
 Böge F, 510, 512, 530  
 Boekema EJ, 483, 676, 698, 704, 705  
 Boerjan W, 27, 312, 384  
 Boersig M, 434, 435, 437, 440  
 Boesel IL, 581  
 Bogorad L, 481, 546  
 Bögre L, 106, 108, 116  
 Bogucki A, 89  
 Bohlmann H, 454  
 Bohnert HJ, 169, 286-89, 381, 382, 388, 395, 396, 516, 525, 637, 639  
 Bohr VA, 89  
 Boland MJ, 584  
 Boldt R, 217  
 Bolin JT, 262, 263  
 Bolle C, 230  
 Bollen M, 102, 103  
 Boller T, 106, 107, 118, 249, 256, 303, 336, 338, 342, 343  
 Bollini R, 333  
 Bollmann J, 26, 27  
 Bolognese CP, 599, 617  
 Bolwell GP, 249, 262, 309, 310, 313  
 Bonas U, 513  
 Bones AM, 86  
 Bonard-Pierce DK, 364  
 Bonig I, 463  
 Bonneaud N, 596  
 Bonnett HT, 359  
 Booher R, 108  
 Booijs H, 419, 630, 632, 637, 641, 647  
 Booker FL, 84  
 Bookland R, 334

## 718 AUTHOR INDEX

- Boon JJ, 314  
 Boonstra AF, 676  
 Boorer KJ, 612, 613  
 Boosalis MS, 86  
 Boot CJM, 136, 139, 147  
 Boot KJM, 136, 139, 146, 147  
 Booth JR Jr, 548  
 Borderies G, 312  
 Borg-Franck M, 383  
 Borkhsenius ON, 343  
 Börner T, 515  
 Borthwick HA, 216, 219  
 Bosma G, 89  
 Bosnes M, 640  
 Bossinger G, 423, 424  
 Boston PF, 50, 51  
 Boston RS, 333, 334  
 Bostwick DE, 335  
 Botella J, 419, 632, 637-39, 641, 643, 645, 647  
 Botha A-M, 186, 190, 191, 196, 205  
 Botha FC, 186, 190, 191, 196, 197, 199, 200, 205  
 Botterman J, 312, 328, 333, 384  
 Boudet AM, 110, 176, 300, 311-14, 469  
 Bouet C, 574, 576  
 Bouges-Bocquet B, 488  
 Bouillon P, 631  
 Boulter D, 106, 109  
 Bouter H, 371  
 Bouvier-Durand M, 106, 112, 113, 380, 394  
 Bouzayen M, 249, 256, 257, 260, 263  
 Bowen B, 26, 315  
 Bowen BW, 54, 56, 63, 66, 67  
 Bowen ID, 316  
 Bowlby NR, 692, 702  
 Bowler C, 80, 102, 217, 223, 396  
 Bowley SR, 396  
 Bowman BJ, 161  
 Bowman D, 37  
 Bowman EJ, 161  
 Bowman J, 303  
 Bowman KK, 86  
 Boyer C, 526  
 Boyer CD, 516  
 Boyer JS, 384, 524  
 Boyer SK, 335  
 Boyington JC, 262-64  
 Boylan MT, 217, 225, 226, 585  
 Boyle MG, 524  
 Bozak K, 262  
 Braaten JT, 469  
 Brabec F, 368  
 Bradley M, 219, 230  
 Braidot E, 247  
 Brambl R, 543  
 Brandner J, 600, 603  
 Brandt AS, 260, 264  
 Brandt J, 53, 66  
 Brandt U, 500, 503  
 Branton D, 340  
 Brash AR, 246  
 Brauer M, 520  
 Braun HP, 601  
 Braun P, 676  
 Braun Y, 163  
 Brautigan DL, 109  
 Bray CM, 79, 83, 84, 88  
 Bray EA, 380, 383, 386, 645  
 Breaux EJ, 134, 138, 140, 141  
 Breddam K, 635, 636  
 Bremberger C, 162, 164, 168  
 Brennand J, 85  
 Brenner M, 220, 231  
 Brenner ML, 525  
 Bressan RA, 165  
 Breton J, 657, 698, 700, 701, 705  
 Brett CT, 467  
 Breu V, 419, 629  
 Brewis ND, 114  
 Breyton C, 481-83, 501  
 Brian PW, 9  
 Briantais J-M, 658, 660, 662, 670  
 Bricker TM, 688  
 Bridges I, 134, 138  
 Briggs WR, 217-19, 221, 227, 228, 231  
 Bright S, 134, 138  
 Bright SWJ, 134, 138, 571, 574, 575, 578, 580  
 Brigneti G, 29  
 Brink RA, 26  
 Brink S, 601  
 Brisson LF, 145, 146  
 Brisson N, 118, 513, 514  
 Britsch L, 247, 248, 250, 262, 263, 265  
 BRITT AB, 75-100; 81, 83, 84, 86, 88, 93  
 Britten CJ, 166  
 Britton G, 669  
 Briza J, 85  
 Broadwater AH, 453  
 Brock H, 658  
 Brock IW, 574, 576  
 Brodie BB, 262  
 Brody S, 667  
 Brosnan JM, 173, 176  
 Broughton WJ, 637, 644  
 Brouquise R, 512, 515, 521, 584  
 Brown BA, 220, 230  
 Brown CS, 230  
 Brown JA, 462  
 Brown JWS, 67  
 Brown K, 637, 638, 644, 645  
 Brown RA, 465  
 Brown RM Jr, 309, 465  
 Brown S, 283, 500, 503  
 Brown T, 86  
 Brown WV, 370  
 Browning KS, 115  
 Brownlee C, 173, 355  
 Browse J, 410, 417, 543, 544, 547-49, 551, 558, 628, 646  
 Brüggemann W, 544, 554, 555  
 Bruggiera F, 248, 250, 513  
 Brulfert J, 287  
 Brumfield RT, 367  
 Brummet W, 675  
 Bruneau J-M, 434, 435, 437, 440  
 Brusslan JA, 27, 28, 217  
 Bryan AA, 365  
 Bryant DA, 689, 691  
 Bryce JH, 193  
 Buchala AJ, 455, 458  
 Buchanan BB, 197, 200, 201, 205  
 Buchanan SK, 491  
 Büchel C, 698, 700, 703  
 Büchel DE, 598  
 Bucheli E, 450  
 Buchner J, 385  
 Buck CP, 262  
 Buck F, 545, 547, 548  
 Buckhout TJ, 176  
 Budde RJA, 102, 110, 115, 281  
 Buehler EG, 453  
 Buetler TM, 132  
 Buetow DE, 686, 693  
 Bugos RC, 314  
 Buhrow SA, 546  
 Bui VL, 285  
 Bull J, 130, 134, 138, 145, 146  
 Bull TA, 524  
 Bullen BL, 227  
 Bullerjahn GS, 689, 690  
 Bullied NJ, 333  
 Bullough PA, 695  
 Bulman M, 383, 384  
 Bulone V, 467  
 Bun YM, 600  
 Burbelo PD, 50, 58  
 Burd CG, 395  
 Bureau J-M, 147  
 Burgess J, 340, 368  
 Burgess SR, 344  
 Burgoyne RD, 53, 55, 57, 68  
 Burk LG, 355



- Burkhart W, 313  
 Burmeister DM, 257, 260  
 Burnap RL, 689, 690  
 Burris RH, 572  
 Busa WB, 177  
 Busch C, 601  
 Büschlen S, 495  
 Bush DR, 596, 599, 601  
 Bush DS, 307, 394  
 Busscher M, 27  
 Büssis D, 520  
 Bustamante C, 657, 665, 672  
 Butler JM, 342, 343  
 Buttin G, 597  
 Büttner M, 479, 480  
 Buurmeijer WF, 232  
 Buxton DR, 465, 469  
 Byrne D, 219, 231
- C**
- Caboche M, 514, 524, 571,  
 572, 574, 578, 585, 586,  
 645  
 Cabrera y Poch HL, 220, 229  
 Caddel JL, 407  
 Caddick LR, 451, 455  
 Cadel G, 542  
 Cadena-Gomez G, 151  
 Caelles C, 453, 637, 638  
 Cahoon E, 409  
 Caille A, 633, 634  
 Cairns AJ, 520  
 Calamia J, 606  
 Caldwell MM, 84  
 Caldwell WS, 277  
 Camacho P, 530  
 Cambareri EB, 39  
 Cameron FH, 41  
 Cameron-Mills V, 331, 334  
 Camier S, 108  
 Camm EL, 691, 693  
 Cammaerts D, 579-81  
 Camp PJ, 102, 115  
 Campargue C, 312  
 Campbell AK, 173  
 Campbell D, 672, 676  
 Campbell MM, 312, 314  
 Campbell WH, 110, 111,  
 117, 118, 314, 579  
 Campbell WP, 344  
 Campeau N, 386  
 Campos FAP, 631  
 Camps M, 106, 109  
 Canals JM, 332, 334  
 Canas L, 311  
 Candé WZ, 364  
 Cannell ME, 578  
 Cannon JF, 105-8  
 Cantón FR, 578  
 Capdevila J, 265  
 Capel J, 54, 55, 66
- Capellades M, 314, 469  
 Caplan AB, 643  
 Carabelli M, 233  
 Carbonero P, 518  
 Carboneau H, 176  
 Carde JP, 515  
 Carlberg I, 557  
 Carlisle S, 186, 187, 190, 191  
 Carlson JE, 313  
 Carlson M, 510, 599, 602  
 Carlson PS, 357  
 Carlson TJ, 548  
 Carlson W, 364  
 Carlsson LE, 333  
 Carnal NW, 191  
 Carnelli A, 176  
 Carol P, 81, 220, 225, 230  
 Caron L, 698, 700  
 Carpenter JF, 389  
 Carpenter R, 26, 27, 89, 358,  
 366  
 CARPITA NC, 445-76;  
 446-48, 450, 451, 454,  
 458, 459, 462, 463, 465,  
 466  
 Carr AM, 52, 54, 55, 63, 93  
 Carr FJ, 85  
 Carrasco A, 176  
 Carrayol E, 274, 275, 576,  
 578, 585  
 Carrell C, 483, 490, 491, 494  
 Carrington W, 37  
 Carroll TP, 179  
 Carson C, 519  
 Carter KC, 37  
 Carter MC, 637, 638  
 Carter P, 110, 117  
 Carter PJ, 281-83  
 Carvalho H, 574-76  
 Cary AJ, 224, 231  
 Carystinos GD, 168, 169, 192  
 Casal JJ, 223, 225  
 Casamayor A, 106, 109, 114  
 Casano LM, 116  
 Cascante M, 202  
 Cases R, 688  
 Casey JL, 38  
 Casey R, 246, 247  
 Cashmore AR, 60, 84, 217,  
 218, 220, 225, 227, 228,  
 391  
 Casida JE, 140, 141  
 Caspar T, 220, 222, 229,  
 232, 233  
 CASPARI T, 595-625; 596,  
 603, 608-11, 616  
 Caspers M, 331, 333  
 Cassab GI, 310, 454  
 Cassagne C, 406, 409, 410,  
 415, 416, 628, 647  
 Casse-Delbart F, 383  
 Castagnaro A, 631
- Castellano JM, 255  
 Caster CS, 547, 548  
 Castle L, 220, 229, 232, 233  
 Castonguay Y, 383, 543, 559  
 Castresana C, 27-29  
 Cateson A-M, 300, 313  
 Catevelli L, 543, 559  
 Caubergs RJ, 257  
 Cavalier-Smith T, 687, 699,  
 700  
 Cawood MC, 190, 199  
 Cawood ME, 190, 197  
 Ceanovas FM, 578  
 Cedar H, 78  
 Celenza JL, 599, 602  
 Cerana R, 168, 178  
 Cerff R, 190  
 Cerioli S, 333, 423  
 Ceriotti A, 328, 330, 331, 333  
 Cerutti H, 90  
 Cerutti PA, 81  
 Chabanet A, 313  
 Chaboud A, 450  
 Chai HB, 145  
 Chain R, 483  
 Chakerian RL, 386, 387  
 Chaleff RS, 357  
 Chamberlain NL, 41  
 Chamovitz D, 220, 233, 234  
 Champigny ML, 284  
 Chandler J, 512, 515  
 Chandler PM, 386, 390, 554,  
 559  
 Chandler VL, 26, 27  
 Chandra GR, 512  
 Chandra S, 635  
 Chang CK, 492  
 Chang HC, 276  
 Chang JJ, 492  
 Chang L, 115  
 Chang PL, 54, 60, 62, 66, 67  
 Chanson A, 170, 596  
 Chao EE, 699  
 Chappatto JX, 370  
 Chapple CCS, 82, 314, 467  
 Chardot TP, 285, 287  
 Charuk JHM, 170  
 Chasan R, 176, 177, 304, 630  
 Chase DB, 262  
 Chase MW, 454  
 Chaudhury AM, 220, 223,  
 224, 226, 231  
 Chauvin L-P, 543, 559  
 Chay CH, 453  
 Cheesbrough TM, 411  
 Cheeseman KH, 145  
 Chedford F, 106, 112, 113,  
 380, 394  
 Cheikh N, 524, 525  
 Chen BJ, 86  
 Chen CL, 313  
 Chen FL, 577

## 720 AUTHOR INDEX

- Chen H, 686, 693  
 Chen JD, 40  
 Chen J-J, 81, 83-86, 88, 93,  
 109, 255, 256  
 Chen LB, 334, 468, 599, 601  
 Chen R-D, 381, 386  
 Chen Y, 396  
 Chen Z, 54, 60, 62, 66, 67,  
 146, 165, 291  
 Cheng C-L, 514, 524, 585,  
 586  
 Cheng HF, 116  
 Cheng L, 115  
 Cheng Q, 600  
 Cheng RH, 482, 483, 493  
 Cherepanov DA, 501  
 Chereskin BM, 574  
 Cheriti H, 381  
 Cherney JH, 469  
 Cherney JR, 469  
 Cherry JR, 226  
 Chesson A, 448, 451  
 Chestnut RS, 331, 334  
 Chevallier MR, 599, 601  
 Chevreau E, 371  
 Chiang GG, 689  
 Chiang H-H, 254, 260, 264  
 Chiapello H, 645  
 Chiba K, 165, 166  
 Childs KL, 219, 232  
 Chin-A-Woeng TFC, 63, 67  
 Chino M, 258, 513  
 Chiou TJ, 599, 601  
 Chirouze V, 636  
 Chisholm S, 690  
 Chitnis PR, 686, 687, 689,  
 693  
 Chitnis VP, 689  
 Chitty JA, 291  
 Chiurazzi M, 89  
 Cho B-H, 134, 138, 146,  
 613, 615  
 Choi S, 411  
 CHOLLET R, 273-97; 28,  
 115, 193, 196, 197, 200,  
 201, 205, 206, 274, 275,  
 277, 280-87, 289  
 Chory J, 217-22, 224, 225,  
 229-34  
 Choudhary AD, 513  
 Chourey PS, 517, 519, 524  
 Chow WS, 659-61, 667,  
 675, 676, 678  
 Chrispeels MJ, 178, 179,  
 328, 330, 331, 341-43,  
 383, 520, 524, 525, 584,  
 646  
 Christianson ML, 355  
 Christoffersen RE, 255  
 Christou P, 358  
 Christy RJ, 546  
 Chu A, 177  
 Chu AM, 220, 233, 234  
 Chua N-H, 102, 217, 223,  
 226, 379, 386, 390-92  
 Chun Y-S, 105  
 Chung CH, 631  
 Chung GC, 164, 168  
 Chung R, 635  
 Chupeau Y, 40, 41  
 Church DL, 302  
 Churms SC, 451, 454  
 Chynwat V, 667  
 Cicirelli M, 103, 117  
 Cinti DL, 416  
 Ciriacy M, 599, 602  
 Cirillo VP, 599  
 Clack T, 219, 226  
 Claes B, 383  
 Clark AM, 637, 639  
 Clark CT, 262  
 Clark G, 67  
 Clark WD, 454  
 Clarke AE, 450, 451, 453,  
 454, 463  
 Clarke ED, 134, 138, 141  
 Clarke PR, 110, 111, 116,  
 117, 119  
 Clarke S, 381, 384, 385  
 Clarkson DT, 600, 604  
 Clastre M, 312  
 Claussen W, 518, 524  
 Clayberg CD, 357  
 Clayton RA, 597, 598  
 Clegg MT, 454  
 Cleland RE, 62, 224  
 Cleland WW, 275, 276  
 Clendennen SK, 700  
 Clerc P, 371  
 Cleves AE, 645  
 Cleyet-Marel J-C, 249, 255,  
 256  
 Clifford HT, 447, 455  
 Clifton JJ, 247, 262, 263  
 Close TJ, 386, 394, 554, 559  
 Clouse SD, 146  
 Clowes FAL, 367  
 Clua E, 106, 109, 114  
 Clutter ME, 358  
 Cobb A, 570  
 Cobb BG, 207  
 Coburn J, 54, 55, 62  
 Coca MA, 383, 385  
 Cock JM, 574, 576  
 Cockcroft S, 645  
 Coe EH Jr, 26, 250, 251,  
 355, 356  
 Coen ES, 26, 27, 89, 358, 366  
 Coetzee GA, 78  
 Cogdell RJ, 667  
 Coggins J, 102, 104, 109,  
 115, 117, 119  
 Cohen A, 380, 383, 386, 645  
 Cohen GN, 597  
 Cohen JD, 144  
 Cohen P, 102-5, 108, 109,  
 115, 117, 119  
 Cohen PB, 451, 454  
 Cohen PTW, 104-6, 109, 114  
 Cohen Y, 687  
 Cohen-Addad C, 633, 634  
 Cohn NS, 522  
 Coker JA, 256  
 Colbert J, 219, 231  
 Colbert JT, 219  
 Cole DJ, 140, 526, 586  
 Cole KP, 205  
 Coleman CE, 334  
 Coleman PM, 488  
 Coles B, 130  
 Collier J, 85  
 Collier JL, 689  
 Collier RJ, 54, 55, 58, 59, 62,  
 67  
 Colling C, 118  
 Collinge DB, 50, 52, 53, 57,  
 66, 68  
 Collinge MA, 106, 113, 114  
 Collins GB, 260  
 Colman PM, 468  
 Colombo R, 168, 178  
 Colvert KK, 488, 489, 493  
 Colwell GW, 386, 387  
 Condon SA, 282, 283  
 Condon R, 629, 635  
 Cone JW, 219, 225  
 Conejero V, 311  
 Conkling MA, 436, 438, 512,  
 514, 516, 524, 525, 585,  
 586  
 Conley TR, 229  
 Conn CC, 570  
 Conn EE, 452  
 Conroy K, 54, 57  
 Cook L, 416  
 Coon MJ, 246  
 Coons DM, 599, 602  
 Cooper C, 458, 459, 462  
 Cooper HL, 53  
 Cooper P, 543  
 Cooper TG, 601  
 Cooper W, 256, 260, 263  
 Cooperman BS, 167  
 Copeland L, 186, 187, 190,  
 195, 197-99, 204  
 Córdoba F, 257  
 Cordonnier-Pratt MM, 219  
 Cori CF, 597  
 Corin AF, 605  
 Cormier MJ, 176  
 Cornel FA, 192, 196-98,  
 205, 206  
 Cornelius MJ, 572, 573  
 Cornish EC, 513  
 Coronado R, 171  
 Corum JW III, 106, 109, 117

- CORUZZI GM, 569-93;  
512, 515, 574-76, 582-85  
Coschigano K, 571, 572,  
581, 586  
COSCHIGANO KT, 569-93  
Cosgrove D, 217, 224, 225  
Cosgrove DJ, 217, 225, 463,  
464  
Cossins AR, 543, 558  
Costa MA, 511, 517  
Cotton J, 219, 231  
Coué I, 515  
Coughlan SJ, 480  
Coutos-Thevenot P, 629, 641  
Cowling RA, 262  
Cox GC, 690  
Cox KH, 639, 640  
Cox RP, 503  
Crabeel M, 616  
Crafts-Brandner SJ, 434-37,  
441, 442, 515  
Cragoe EJ Jr, 170  
Craig S, 220, 223, 224, 226,  
231, 333, 338, 339  
CRAMER WA, 477-508;  
479-84, 486, 489, 492,  
493, 495, 498-503  
Crane MB, 357, 360, 369  
Crane RK, 598  
Crawford NM, 81, 525, 571,  
572, 600, 602  
Créach A, 406  
Crech RG, 637, 642  
Creelman RA, 513, 517  
Crespi M, 513  
Crétin C, 196, 205, 206, 274,  
275, 279-82, 285-87, 289,  
453  
Crews L, 190, 196, 202  
Crimi M, 479, 480  
Cripe LD, 54, 55, 58, 59  
Crique MC, 512, 514  
Cristinsin M, 514, 524, 585,  
586  
Critchley C, 678  
Croce R, 678  
Crofts AR, 495, 497, 500,  
665  
Crofts J, 662, 669, 671, 677  
Crombie L, 249, 259  
Cronan JE Jr, 544  
Crosset M, 636  
Cross AR, 546  
Crouch M, 386  
Crovello CS, 102  
Crowe JH, 388, 389  
Crowe LM, 388, 389  
Crowell DN, 525  
Cua A, 667  
Cuellar RE, 331  
Cugini D, 678  
Cui C, 54, 57  
Cukier RI, 492  
Culbreath AK, 407  
Culiñez-Macia FA, 315,  
386, 394  
Culligan K, 220, 230  
Cullimore JV, 574-77  
Cullis CA, 42  
Cummins I, 548  
Cunillera N, 106, 109  
Cunningham E, 645  
Cunningham FX, 698, 699  
Cunningham TS, 601  
Curry J, 386  
Curry WB, 492  
Curtis PS, 520  
Curzon EH, 451  
Cusanovich MA, 488, 489  
Cushman JC, 196, 201, 286,  
288, 289  
Cushman MF, 196, 201  
Cutter EG, 370  
Cwirla SE, 332  
Czaninski Y, 313  
Czarnecka E, 135, 138, 147,  
149  
Czygan FC, 674
- D**  
da Cruz e Silva EF, 114  
da Cruz e Silva OB, 114  
Dahlgren RMT, 447, 455  
Dai Z, 288  
Daie J, 395, 522  
Dainese P, 657, 658, 665,  
688, 692, 693, 704, 705  
Dainty J, 172, 178  
Daldal F, 493, 497  
Dale JE, 224  
Dale P, 391, 392  
Dalessandro G, 309  
Dalgarno K, 448  
Dallmann G, 217  
D'Amico L, 333, 527  
Daminati MG, 333, 527  
Damm I, 693  
Damuni Z, 109  
Dancer J, 192, 198  
Dandoy E, 79  
Danen EHI, 53, 66  
Dangl JL, 313  
Daniel V, 148  
Daniels MJ, 383  
Danielson UH, 128, 130,  
145, 146  
Daniel-Vedele F, 586  
Danko SJ, 115  
Dann R, 630, 645, 647  
Dannenhoffer JM, 335  
Danon A, 530  
Danyluk J, 543, 559  
Darnhofer-Demar B, 617  
Darvill AG, 142, 446, 448,  
450, 451, 462  
Darwin C, 352  
Datla RSS, 314  
Daum G, 630, 645  
Daveloose D, 636  
Davenport G, 29  
Davey R, 309  
David MC, 602  
David NR, 115  
Davidson E, 493  
Davies C, 81, 89, 93  
Davies CS, 89  
Davies HV, 521  
Davies JM, 163, 167, 172,  
173, 192  
Davies KM, 251, 260  
Davies MS, 134, 138, 141  
Davies PJ, 231  
Davies SP, 110, 111, 117, 119  
Davis DJ, 488, 489, 493  
Davis KD, 137, 147  
Davis KM, 584  
Davis KR, 260, 315  
Davis RW, 408, 421, 424  
Dawe RK, 355  
Dawut L, 84, 218, 220, 228  
Day DA, 579  
Day HM, 575, 576  
Deak M, 219, 226, 732  
Dean JV, 131, 137, 139, 141,  
142  
Dearn JM, 370  
De Bedout JA, 393  
de Beus M, 396  
Deblaele R, 328  
de Boer AH, 54, 55, 62  
de Bolle MFC, 629, 643  
Deboo GB, 260, 264  
de Bruijn FJ, 286, 425, 637,  
645, 646  
Debus RJ, 687  
De Carolis E, 249, 255  
De Carvalho F, 27-29  
Dedio J, 247, 250, 260, 263  
De Feijter AW, 641  
Degli Esposti M, 479, 480,  
501  
Degousee N, 137, 146  
De Gruil FR, 85  
Dehesh K, 220, 225  
Dehio C, 25, 26, 31, 35  
Dehning I, 637, 644  
Deikman J, 231, 232, 259,  
260, 264  
Deisenhofer J, 687  
DeJong JL, 131  
DeJuan C, 616  
Dekens RG, 219, 225  
de Kermel A, 628  
Dekeyser R, 383  
Dekker JP, 658, 670, 705, 706  
de Kok LJ, 146

## 722 AUTHOR INDEX

- de Kruijff B, 560  
 Delaney TP, 146, 217, 220, 233, 234  
 De Lange P, 27, 31  
 Delaunay A-M, 313  
 Deleens E, 283  
 Delepelaire P, 688  
 Delgado B, 280, 281  
 Delgado E, 570  
 DeLisle AJ, 53, 55, 60, 65  
 Delledonne M, 420, 423, 424  
 Delmer DP, 446-48, 465  
 DeLong A, 106, 110  
 De Long MJ, 131, 132  
 De Luca V, 249, 255  
 Delosme R, 499  
 Delseny M, 379, 380, 393, 453, 543, 559, 637, 638  
 Deltour R, 79  
 DeLuca V, 199, 204  
 DeMason DA, 386, 394  
 Dembinski E, 585  
 De Michelis MI, 176  
 Demmig B, 674  
 Demmig-Adams B, 217, 656, 659-62, 665, 666, 669, 672, 674, 675  
 Demolder J, 333  
 Demple B, 80, 85  
 Demski JW, 407  
 Demura T, 223, 302, 304, 305, 307, 309  
 Denby KJ, 512, 514, 515, 525, 526, 530  
 Denecke J, 328, 330, 331, 333  
 Deng M-d, 420, 421  
 DENG X-W, 215-43; 217, 220, 222, 223, 225, 227, 229-35  
 Deng Z, 86  
 Dennis DT, 186, 187, 190, 191, 196, 197, 199, 200, 202, 204, 205  
 Dennis E, 26  
 Dennis ES, 220, 223, 224, 226, 231  
 Dennis MW, 411, 424  
 Denton RM, 115  
 Deom CM, 368  
 DePaoli RA, 108  
 Depicker A, 25, 26, 30, 31, 39  
 DePierre JW, 131  
 Depta H, 160, 342  
 de Rege PJF, 492  
 Derfler B, 85, 86  
 Dermen H, 354-56, 359, 361  
 Deroche ME, 274, 275  
 DeRycke R, 333  
 Deshaies RJ, 93  
 Deshniun P, 546, 547  
 DeSimone NA, 379, 386  
 Désormeaux A, 628, 633  
 Després C, 118  
 Desprez T, 645  
 de Steensma HY, 53, 55, 63  
 de Swart RL, 560  
 Deswarte C, 312, 313  
 Deutsch CE, 394  
 Devarenne TP, 131, 139, 141  
 Devaux PF, 628, 636  
 Dever LV, 291  
 de Vetten NC, 53-60, 62, 65-67  
 Devi MT, 275, 277, 281, 287  
 de Vienne D, 383, 395  
 de Virville JD, 628, 629  
 de Vitry C, 481, 483, 688  
 Devlin DF, 219, 232  
 De Vos CHR, 146  
 de Vries C, 196  
 de Vries SC, 419, 479, 480, 630-32, 637, 641-43, 645, 647  
 de Vrije GJ, 560  
 de Vrije T, 560  
 DeWald DB, 513, 517, 524, 525  
 Dharmawardhana DP, 313  
 Dhindsa RS, 168, 169, 192, 543, 544, 559, 560  
 Dianzani MU, 145  
 Dfaz E, 275  
 Diaz M, 596  
 Diaz-Collier J, 134, 138, 141  
 Dickinson CD, 520  
 Dickinson JR, 526, 586  
 Dieryck W, 634, 637  
 Diesperger H, 137, 139, 142  
 Dieter P, 176  
 Dietrich A, 314, 315  
 Dietrich CR, 420, 423, 424  
 Dietrich M, 368  
 Dietz KJ, 275, 281  
 Dieuauide M, 515  
 Di Fonzo N, 333, 423, 424  
 Dilley DR, 255, 257, 260  
 Dilley RA, 663  
 Di Ilio C, 132, 133  
 Dillwith JW, 407  
 Dilworth MF, 584  
 Ding B, 368  
 Ding CK, 318  
 Ding H, 497  
 Dinsmore A, 134, 138, 141  
 Dirr HW, 131, 144  
 Dittmer H, 604  
 Ditttrich P, 161  
 Dixon R, 81, 145, 146  
 Dixon RA, 137, 139, 142, 143, 145, 146, 220, 230, 249, 258, 314, 315, 513, 527  
 Dobner PR, 41  
 Dockx J, 233  
 Dodds JH, 307  
 Dodson GG, 67  
 Doebley J, 42  
 Doehrlert DC, 436  
 Doerfler W, 28  
 Doetsch PW, 86, 87  
 Doke N, 145  
 Dolan L, 367  
 Dolferus R, 79  
 Dolganov NAM, 686, 701, 702  
 Dombradi V, 105  
 Dombrowski JE, 342, 343  
 Domen J, 35  
 Domingo C, 311  
 Dominov JA, 117, 118, 136, 138, 139  
 Domoney C, 246, 247  
 Doms RW, 330  
 Donahue BA, 82  
 Donaldson DD, 334  
 Donaldson P, 543, 559  
 Doncaster HD, 280  
 Donella-Deana A, 109, 111, 116  
 Dong JG, 247, 249, 255-57  
 Dong X, 260  
 Donnelly D, 687  
 Doolittle WF, 687  
 Doonan JH, 105, 106, 108  
 Dooner HK, 26, 410, 425, 558  
 Dorbe M-F, 586  
 Dorer RD, 26  
 Dorlhac de Borne FD, 40, 41  
 Dörmann P, 415  
 Dorne A-J, 542, 636  
 Dormmair K, 605  
 Dörr K, 691, 703, 704  
 Douady D, 419, 628, 629, 633, 641, 642, 698, 700  
 Douce R, 515, 521, 542, 558, 584  
 Dougherty WG, 29, 31  
 Douglas CJ, 313-15  
 Douglas MG, 601  
 Douglas SE, 700  
 Dower WJ, 332  
 Dowhan W, 560, 645  
 Downing WL, 383, 395  
 Downs CG, 260  
 Downs RJ, 216, 224, 225  
 Doxsee RA, 233  
 Doyle S, 366  
 Drake JW, 42  
 Drake R, 260  
 Dreesen TD, 40  
 Dresselhaus T, 547, 548  
 Drew MC, 391, 519  
 Dreyfuss BW, 693, 704

- Driessen AJM, 603  
 Driouch A, 313  
 Drischel C, 631  
 Driscoll PC, 488  
 Driscoll SP, 570  
 Driver ED, 41  
 Droillard M-J, 147  
 Dron M, 146, 314  
 Droog FNI, 131, 133, 136, 138, 139, 143, 144, 147  
 Drory A, 260  
 Drummond B, 315  
 Dry IB, 579  
 Du JS, 513, 517, 530  
 Dubacq JP, 628, 636  
 Dubnova EB, 167  
 Duckett CM, 367  
 Ducret A, 689, 690  
 Dudler R, 130, 134, 137-39, 145-47  
 Dudley M, 362, 363  
 Duff SMG, 116, 192, 194, 196, 198, 199, 205, 275, 280-85  
 Dufour M, 601  
 Duke ER, 512, 514, 516, 519, 520, 524  
 Duke SH, 574  
 Duncan HJ, 455, 458  
 Dunham WR, 263  
 Dunn G, 575, 576  
 Dunn MA, 383, 543, 559, 637, 638, 644, 645  
 Dunn P, 421  
 Dunning N, 450  
 Dupille E, 249, 255, 256  
 DuPont FM, 161-63, 169  
 Dura JM, 34  
 Durachko DM, 464  
 Duranton H, 631  
 Dure L III, 379, 386, 387, 559, 584  
 DURNFORD DG, 685-714; 693, 698, 700  
 Durr A, 512, 514  
 Dutka F, 140  
 Dutton PL, 492, 497, 499  
 Duvall MR, 454  
 Dwarte D, 703  
 Dwivedi UN, 314  
 Dyzol J, 600, 603  
 Dzelzkalns VA, 546
- E**  
 Ealing PM, 600, 604  
 Earle ED, 358  
 Earnest TN, 482  
 Easterday RL, 276  
 Eaton DL, 132  
 Eberlein CV, 137, 139-41  
 Ebskamp MJM, 396  
 Echevarria C, 275, 280-83, 285  
 Echols H, 91  
 Echt CS, 519  
 Ecker APM, 90  
 Ecker JR, 220, 223, 224, 231  
 Eckerskom C, 54, 62, 601, 605  
 Eckert KA, 609  
 Eda Y, 259  
 Eddy AA, 598  
 Edgerton MD, 233  
 Edwards GE, 288  
 Edwards JW, 574-76, 585  
 Edwards PB, 370  
 Edwards R, 27, 137, 139, 140, 142, 143  
 Egen M, 149  
 Egli MA, 139, 141  
 Eguchi G, 545  
 Ehara T, 641, 642  
 Ehleringer JR, 277  
 Ehmann B, 217, 223  
 Ehrling R, 598  
 Eiben HG, 260  
 Eigenbrode SD, 406-8, 413, 420, 421, 423, 424, 642  
 Eisenberg R, 171  
 Ek B, 331, 333  
 Eker APM, 84  
 Elamrani A, 515  
 Elberry HM, 601  
 Elderfield PD, 486  
 Elgin SCR, 33  
 Elich T, 218, 224, 225  
 Elk B, 333  
 Elkind Y, 27  
 Ellard M, 315  
 Elling CE, 609  
 Ellingboe AH, 369  
 Elliott RC, 233  
 Ellis BE, 82, 313, 314, 467  
 Ellis CA, 53, 55, 57, 68  
 Ellis RE, 318  
 Elmlinger MW, 230, 578  
 Elomaa P, 35, 632, 637, 638, 643  
 Elrifli IR, 193, 194, 198  
 El-Sawi Z, 301  
 Elstad VB, 219  
 Elster R, 381, 382, 388  
 Elzenga JTM, 169, 224  
 Emes MJ, 187, 190, 201  
 Emmermann M, 601  
 Emr SD, 339, 340, 646  
 Endara ME, 260  
 Endo F, 259  
 Engel K, 385  
 Engelward BP, 86  
 England S, 247, 257, 262  
 Engler G, 312, 384  
 Engstrom A, 130, 139, 145, 146
- Entian KD, 526  
 Eom SH, 633  
 Epstein E, 597, 604  
 Erdjument-Bromage H, 135, 138  
 Erdős G, 686, 693  
 Erikson OF, 51, 56, 60  
 Ermler UG, 491  
 Errede B, 54, 57  
 Erwee MG, 368  
 Esau K, 367  
 Escobar A, 171, 176  
 Escoffier A, 628  
 Espartero J, 381, 384  
 Espelie KE, 406, 407  
 Espelund M, 386, 393  
 Estabrook RW, 246  
 Esterbauer H, 130, 145, 146  
 Eulitz M, 605  
 Evan G, 318  
 Evans DE, 176  
 Evans IM, 106, 109  
 Evans LT, 524  
 Evans M, 420, 423  
 Evensen G, 86  
 Evenson KJ, 410, 412, 415, 416  
 Everly RM, 479, 480, 482, 483, 492, 493, 495  
 Evtushenko OA, 167  
 Ezra G, 141
- F**  
 Fabbrini MS, 333, 527  
 Fagan M, 218, 224, 225  
 Fahey RC, 131  
 Fahleson J, 421  
 Fait J, 110  
 Falbel TG, 693  
 Falck JR, 265  
 Falcone DL, 548  
 Falconer MM, 305, 308  
 Falk S, 195  
 Falkowski PG, 80, 689, 690, 698, 700  
 Fantl WJ, 54, 55, 57, 59  
 Färber A, 666  
 Farcy E, 513  
 Farid RS, 492  
 Farnden KJF, 582, 584  
 Farnham MW, 582  
 Farquhar GD, 277  
 Farquhar MG, 328  
 Farrar JF, 510, 516, 521, 522, 530  
 Farrell A, 260  
 Faugeron G, 39  
 Faure JD, 574  
 Fauvarque M-O, 34, 383, 395  
 Fawcett T, 106, 109, 543, 628  
 Fawley MW, 697, 698  
 Faye L, 313

## 724 AUTHOR INDEX

- Fedoroff N, 36, 37  
 Fedoroff NV, 37  
 Fei YJ, 602  
 Feil R, 111, 192, 198, 388, 433, 439  
 Feiler H, 105, 106, 108  
 Feinbaum R, 220, 222, 229, 232  
 Feinbaum RL, 231  
 Feingold DS, 466  
 Feiters MC, 262  
 Feix G, 526  
 Fejes E, 217  
 Feldman KA, 224, 642  
 Feldman LJ, 227  
 Feldmann H, 598  
 Feldmann KA, 407, 408, 413, 420, 421, 423, 424, 547, 548, 600, 602  
 Felix G, 106, 107, 118, 303  
 Felsenstein J, 699, 702  
 Feintem PA, 572, 573, 577, 580  
 Fenton RD, 386, 394  
 Ferdinando D, 313  
 Fereres E, 378  
 FERL RJ, 49-73; 26, 53-56, 58, 60-63, 65-68, 519  
 Fernandes E, 600  
 Fernandez JM, 171  
 Fernández Cañoe, 259  
 Fernández-Maculet JC, 247, 249, 255, 256  
 Ferrario S, 141  
 Ferreira PCG, 105-8  
 Ferrer A, 106, 109, 114  
 Feuillet C, 312, 313  
 Fewson CA, 110, 117, 119, 275, 281, 283, 285  
 Fichmann J, 163  
 Ficner R, 696  
 Field JM, 344  
 Field RA, 260  
 Fielding CJ, 629  
 Figueras M, 386, 394  
 Filion M, 161  
 Fincher GB, 448, 450, 451, 453, 454, 467-69  
 Findlay G, 171  
 Fine M, 264  
 Fink GR, 79, 598-600, 603  
 Finkle BJ, 452  
 Finlayson SA, 255, 257  
 Firn RD, 227, 228, 231  
 Fisahn J, 675  
 Fischer B, 27-29  
 Fischer K, 601, 605, 617  
 Fischer RL, 259, 260, 264, 395  
 Fischer WN, 596, 599, 601  
 Fiscus EL, 84  
 Fisher LM, 513, 517, 530  
 Fitton J, 85  
 Flavell RB, 27, 28, 32  
 Fleck J, 512, 514  
 Fleig U, 105-8  
 Fleischmann RD, 597, 598  
 Fleming AJ, 370, 419, 632, 637, 639, 640  
 Fleming GR, 706  
 Fletcher D, 106, 107, 109  
 Fletcher RA, 265  
 Flint SD, 84  
 Flores S, 231  
 Flügge UI, 171, 597, 601, 605, 617  
 Fluhr R, 117, 118  
 Fogarty K, 37  
 Fogliano V, 54, 55, 62  
 Fong NM, 599, 602  
 Fontes EBP, 333  
 Foote RS, 85  
 Ford JC, 52, 54, 55, 63, 67  
 Ford RC, 704  
 Forde BG, 574-76, 578, 612  
 Fordham-Skelton AP, 106, 107, 109  
 Forkmann G, 247, 248, 250, 260, 262, 263  
 Forster B, 314  
 Forsthoefel NR, 196, 201, 288  
 Forsyth W, 455, 458  
 Fosket DE, 303  
 Foster DL, 598  
 Foster GD, 637, 639, 640, 643  
 Foster KR, 232  
 Foster R, 391, 695, 704  
 Fothergill-Gilmore LA, 190, 196, 199, 201, 202, 204, 207  
 Fotou E, 52, 54, 55, 63  
 Fourcroy P, 383  
 Fowden L, 584  
 Fowke LC, 331, 336-38  
 Fowler A, 631  
 Fowler S, 703  
 Fox BG, 548  
 Fox CF, 597  
 Fox TC, 196, 198, 201, 207  
 Foxon GA, 314, 525  
 Foyer CH, 257, 284, 436, 440, 520  
 Fraenkel-Conrad H, 31, 38  
 Fraley RT, 134, 138, 140, 141  
 Frame MK, 488, 489, 493  
 Frances S, 233  
 Franceschi VR, 331, 334, 335, 342, 344, 513, 515, 517  
 Franci C, 220, 225  
 Franck M, 543, 559  
 François JM, 104  
 Frank G, 697, 698  
 Frank HA, 667  
 Frank K, 484  
 Frankel LK, 688  
 Franken J, 27  
 Franklin LA, 678  
 Franz G, 391  
 Franz J, 600, 603  
 Fray RG, 27, 31, 32  
 Frear DS, 128, 137, 138, 140, 141  
 Frederick DL, 107  
 Freed E, 54, 57, 59  
 Freedman RB, 333  
 Freeling M, 303, 355, 358, 364, 365, 370, 420, 424  
 Freeman HC, 488  
 Freer AA, 695, 696  
 Freidel K, 599, 602  
 Freire MA, 395  
 Frentzen M, 413, 545  
 Freund S, 187, 190  
 Freundlich M, 38  
 Freundt H, 342  
 Frey M, 37  
 Freyer GA, 86  
 Fricker MD, 113  
 Frid D, 480  
 Friedberg EC, 77, 86, 89  
 Friedländer K, 596, 600, 602, 603  
 Friedrich L, 146  
 Friling RS, 148  
 Frillings S, 607, 608  
 Fritsch SK, 491  
 Fritz DY, 39  
 Fritz M, 545  
 Fritz SE, 453  
 Fritzscheier K-H, 135, 138, 146  
 Frohnmeyer H, 217  
 Fromme P, 687, 689  
 Frommer WB, 512, 513, 516, 517, 522, 596, 599-604  
 Frost BF, 85  
 Frova C, 141  
 Fry SC, 450, 452, 462-64, 467  
 Fryer MJ, 661, 670  
 Fu H, 54, 55, 57-60, 62, 66, 67, 514  
 Fu XD, 37  
 Fu YH, 41  
 Fuerst EP, 134, 138-41  
 Fuglevand G, 220, 230  
 Fujii K, 580  
 Fujii N, 514  
 Fujii T, 83, 257, 258  
 Fujimura Y, 688  
 Fujioka S, 263  
 Fujisawa H, 51, 53, 56, 60, 281, 282, 287

- Godon C, 586  
 Godoy JA, 383, 386, 637, 638  
 Godt DE, 514, 518, 520, 524, 527  
 Goebel M, 108  
 Goffeau A, 597  
 Goffner D, 312  
 Goffreda J, 359  
 Gogarten JP, 161, 163  
 Gokhman I, 701  
 Golbeck JH, 689  
 Goldberg MI, 117, 119  
 Goldberg R, 313  
 Goldberg RB, 585, 639, 640  
 Golden SS, 689, 690  
 Goldhaber-Gordon IM, 202  
 Goldman MHS, 333  
 Goldsbrough PB, 135, 137, 138, 147  
 Goldschmidt EE, 516, 520, 521  
 Gombos Z, 546, 547, 550-57  
 Gómez J, 310, 383, 395, 453  
 Gomez L, 341  
 Gomez MD, 311  
 Gomez S, 686, 693, 695  
 Gonzales FJ, 246  
 González DH, 275, 277, 280, 287  
 González-Reyes JA, 257  
 Good NE, 143, 144  
 Goodall KG, 488  
 Goodchild DJ, 338, 339  
 Goodman HM, 81, 88, 89, 231, 254, 260, 264, 380, 393, 547, 548, 574, 576, 585  
 Goodman MF, 91  
 Goodwin PB, 368  
 Gooley AP, 698, 700, 701  
 Gordon AH, 448  
 Gordon AJ, 515  
 Gordon D, 218, 220, 225  
 Gordon MP, 25  
 Gorecki RJ, 305, 313  
 Goren R, 516  
 Goring DR, 26  
 Gosti F, 380, 390, 393, 397  
 Goto N, 225  
 Gotoh Y, 54, 57  
 Gottlieb LD, 582  
 Gottlob-McHugh S, 190, 195, 196, 202  
 Gough S, 690  
 Gouin FR, 357  
 Goupil P, 391  
 Govind NS, 698, 701  
 Govindjee, 662, 664, 670  
 Goyon C, 39  
 Goztoila D, 667  
 Grabber JH, 448, 451, 452  
 Grabe MD, 492  
 Grabowski B, 698, 699  
 Grabski S, 641  
 Gradmann D, 615  
 Graebe JE, 248, 252, 254, 265  
 Graham IA, 512, 514, 515, 525, 526, 530  
 Gräml-Wicke U, 596, 600, 602, 603  
 Grammatikopoulos G, 281  
 Grand C, 469  
 Grandoni P, 90  
 Grant S, 37  
 Grant V, 352  
 Gray GR, 675  
 Gray HB, 492  
 Gray JC, 206, 259, 483, 484, 490, 493, 512  
 Gray KA, 493  
 Gray MW, 687  
 Grayburn WS, 260  
 GREEN BR, 685-714; 676, 686, 687, 691-93, 695, 696, 698, 700-2, 704  
 Green MR, 37  
 Green NK, 574  
 Green PB, 368, 425, 637, 645, 646  
 Green PJ, 31, 38, 286, 394  
 Green PR, 545  
 Greene B, 365  
 Greenland A, 134, 138  
 Greenland AJ, 134, 138  
 Greer AF, 381, 386  
 Greer KL, 690  
 Gregersen PL, 53, 66  
 Gregerson RG, 274, 285, 287, 577  
 Gregg MM, 227  
 Grellet F, 630, 632, 637, 638  
 Grenson M, 598, 599, 616, 617  
 Grevby C, 698  
 Greyson MF, 186, 190, 191, 197, 199, 200, 204, 205  
 Grierson C, 367, 513, 517, 530  
 Grierson D, 27, 28, 31, 249, 256, 257, 259, 260, 263  
 Griesbach RJ, 35  
 Griffing LR, 336-38  
 Griffiths DJF, 52, 54, 55, 63, 67  
 Griffiths H, 666, 674, 675  
 Griffiths WT, 546  
 Griggs DL, 248, 254  
 Grignon C, 257  
 Grill E, 106, 112, 113, 129, 150, 380, 394, 597  
 Grima-Pettenati J, 300, 311-13  
 Grimes HD, 513, 515, 517  
 Grinstein S, 160, 163, 164  
 Grinter R, 458, 459  
 Grisebach H, 248, 250  
 Grithiths G, 543  
 Groeneveld FG, 705  
 Gronenborn B, 598  
 Gronwald JW, 137, 139-41  
 Grosbois M, 419, 629, 630, 635, 641  
 Gross A, 597, 601, 605  
 Gross LM, 547  
 Gross RW, 54, 55, 61  
 Grosskopf DG, 118  
 Grossman AR, 686, 689, 698, 700-2  
 Grossmann K, 265  
 Grotewold E, 315  
 Grotjohann N, 200  
 Grove G, 134, 138  
 Grove GN, 262  
 Gruenbaum Y, 78  
 Grula JW, 286-88  
 Grunstein M, 34  
 Gruszecki WI, 666, 667  
 Grzesiek S, 596  
 Gubler F, 451, 455  
 Guclu S, 287  
 Guerbette F, 419, 628-30, 635, 636, 641  
 Guern J, 117, 118, 169  
 Guerrero FD, 382-84  
 Guerrier D, 106, 112, 113, 380, 394  
 Guertin M, 697, 698  
 Guggino WB, 179  
 Guglielminetti L, 192  
 Guidici-Ortoni MT, 281  
 Guikers K, 85  
 Guilfoyle TJ, 135, 138, 139, 144, 148, 149, 301  
 Guilroy S, 113  
 Gultinan MJ, 390  
 Guttet E, 451, 452  
 Guivarc'h D, 116  
 Gukovskaya A, 160, 163, 164  
 Gulbinas V, 657, 705  
 Güzl P-G, 407-9, 425  
 Gunderson KL, 596, 597  
 Gunning BES, 308, 367, 368  
 Günter G, 520  
 Günzler V, 249, 258, 262  
 Guo H, 109  
 Guo Y-L, 116  
 Gupta L, 409, 412  
 Guss JM, 488  
 Gustafsson P, 666, 701  
 Gutensohn M, 601, 605  
 Guttenberg C, 131  
 Gutierrez C, 86  
 Gutteridge JMC, 146  
 Guy CL, 333, 525, 543, 559  
 Guyer D, 586

## H

- Haack KR, 39  
 Haass D, 613  
 Habig WH, 130  
 Hachiya A, 193, 198  
 Hachiya N, 54, 55, 61  
 Hackett WP, 513, 520  
 Haehnel LC, 59  
 Hage W, 355  
 Hageman RH, 570  
 Hagemann R, 26  
 Hagemann W, 355  
 Hagen CE, 597  
 Hagen G, 135, 138, 139, 144, 148, 149, 301  
 Hagen H, 670  
 Hagen WR, 491, 493  
 Hagenbuch B, 597



## 726 AUTHOR INDEX

- Hagiwara S, 173  
Haguenauer-Tzapis R, 601, 617  
Hahlbrock K, 118, 230, 312-15  
Hahn K, 135, 139, 143, 144, 146  
Haigler CH, 307-9, 311  
Hajirezaei M, 191  
Hajirezaei MR, 192  
Hake S, 365, 366, 368, 370  
Haley J, 481  
Halford NG, 331, 526, 586  
Halfier U, 420, 424  
Hall A, 50, 58  
Hall J, 80  
Hall MA, 462  
Hall MN, 599  
Hall NP, 571-75, 578, 580  
Halliwell B, 146  
Hallmann A, 603  
Halpin C, 312, 314  
Hamada T, 544, 558  
Hamazaki Y, 542  
Hamilton AJ, 31, 249, 256, 257, 260, 263  
Hamilton ID, 275, 281, 285  
Hammarberg T, 263  
Hammer PE, 231, 232  
Hammerstrom S, 130  
Hammock BD, 381  
Hammond C, 330  
Hamrick JL, 371  
Han EK, 600  
Han SY, 381, 382, 388  
Hanauke-Abel HM, 262  
Hanawalt PC, 82, 93  
Haneji T, 105  
Hangarter RP, 144, 217-20, 223, 225, 227, 525  
Hanhart CJ, 408, 420, 421, 423, 424  
Hankamer B, 676, 698, 704, 705  
Hanke C, 383, 384  
Hanks JF, 584  
Hanley AB, 451  
Hanley S, 81, 88, 89  
Hannah LC, 513, 516, 519, 526  
Hannappel U, 526, 586  
Hannoufa A, 407, 408, 412, 413, 420, 421, 423, 424  
Hansen DE, 277  
Hansen JD, 420, 423, 424  
Hansen JN, 162, 163  
Hansen MJ, 201  
Hansen UP, 615  
Hanson AD, 378, 388  
Hanstein J, 353  
Hantke SS, 366  
Hara S, 38  
Hara-Nishimura I, 342  
Harada H, 386  
Harada J, 386  
Harada S, 278  
Harashima S, 600  
Harberd NP, 217, 219, 225, 230, 585  
Harborne JB, 150  
Hardegger M, 512, 514, 518, 522, 524  
Hardham AR, 308, 338, 339  
Hardie DG, 106, 109  
Harding EI, 134, 138, 141  
Hardy D, 610  
Harel E, 233  
Harel R, 332  
Hareven D, 370  
Harford JB, 38  
Hariharan PV, 81  
Haritou M, 109  
Harley SM, 342  
Hartios K, 247, 262, 263  
Harlow GR, 81, 89, 93  
Harmon AC, 307, 527  
Harmon BV, 316  
Harn C, 395  
Harrington J, 89  
Harris A, 53, 57, 58, 68  
Harris PJ, 447, 451, 454, 455, 458, 558  
Harrison BJ, 26  
Harrison L, 80  
Harrison MA, 693  
Harrison MJ, 513  
Harryson P, 628  
Hart CM, 27-29  
Hart RW, 87  
Härtl H, 662, 670  
Harter K, 217, 512  
Hartley RD, 447, 451, 455  
Hartmann-Bouillon MA, 409  
Hartung AJ, 106, 109, 117  
Harwood JL, 544  
Hasan O, 232  
Haschke H-P, 162, 164  
Hase T, 574, 578, 585  
Hasegawa PM, 165  
Haselkorn R, 690  
Hasezawa S, 117, 119, 134, 136, 139  
Hashimoto C, 255, 260  
Hashimoto T, 249, 252, 255, 260, 264  
Haskell DW, 333, 543, 559  
Haskin KA, 440  
Hatano Y, 105  
Hatch MD, 524, 582  
Hatfield PM, 226, 232  
Hatfield RD, 448, 450-52, 463, 465, 468  
Hatton D, 315  
Hattori J, 190  
Hattori T, 513, 517, 522  
Hatzfeld WD, 204  
Hatzios KK, 141  
Hatzopoulos P, 391  
Hauffe KD, 313, 315  
Hauge BM, 380, 393  
Hauser H, 389  
Hauser I, 135, 138, 146  
Hauska G, 479, 480, 482, 501  
Hausladen A, 145, 146  
Hauswirth N, 698, 703  
Havelange A, 524  
Hawes C, 331  
Hawkesford MJ, 600, 604  
Hawkins SW, 307  
Haworth WN, 446  
Hawthornthwaite-Lawless AM, 695, 696  
Hay DA, 41  
Hayakawa H, 85  
Hayakawa T, 574-76  
Hayashi A, 255  
Hayashi H, 544, 549, 553, 688  
Hayashi K, 515, 526  
Hayashi M, 278  
Hayashida N, 381, 393  
Hayatsu M, 513  
Haycox G, 106, 109  
Hayes JD, 132, 133  
Hays JB, 83, 88, 90  
Hazlett TL, 662, 664, 670  
He C-J, 519  
He LF, 311  
He M, 609  
He S, 490  
Healy AM, 108  
Heard J, 575, 576  
Heathcote P, 500, 501  
Heber U, 256, 660, 670  
Heberle-Bors E, 106, 108, 109  
Hecht U, 578, 632, 637, 643, 645, 647  
Hedden P, 248, 252, 254, 265  
Hedrich R, 171-74, 595  
Hedrick SA, 27  
Heeringa GH, 232  
Hehl R, 26  
Heichel GH, 577  
Heidmann I, 25, 26, 30, 35, 37, 42  
Heierli D, 315, 316  
Heim S, 176, 178  
Heim U, 512, 514  
Heimes S, 30  
Heimsch C, 367  
Hein B, 598, 599  
Hein MB, 301  
Heineke D, 520  
Heinen S, 420, 423  
Heino P, 543, 559  
Heinz E, 544-49  
Helariutta Y, 35, 632, 637, 638, 643  
Heldt HW, 111, 191, 433, 520, 605  
Helenius A, 330  
Helentjaris T, 397  
Heller W, 130, 142, 262  
Helm KW, 333  
Helm RF, 452  
Helmkamp GM Jr, 645  
Hemerly AS, 105-8  
Hemmings BA, 108, 109, 291  
Hempel FD, 391  
Henderson PJF, 610  
Hendricks SB, 216, 219  
Hendriks T, 521, 522, 631, 642, 647  
Hendrix DL, 517  
Hendry GAF, 379, 388



- Hengartner MO, 318  
 Henikoff S, 26, 33, 40  
 Henrissat B, 631  
 Henry D, 700  
 Henry M, 515, 522  
 Henry RJ, 466  
 Henry SA, 645, 647  
 Henrysson T, 692, 693  
 Hensgens LAM, 136, 139, 147  
 Hentze MW, 37  
 Henze K, 190  
 Hepler PK, 303, 334  
 Heppard EP, 548  
 Herget C, 135, 139, 143, 144, 146  
 Herman EM, 334, 336, 338-40, 341  
 Hermans J, 286, 288, 291  
 Hermes C, 262  
 Hermes JD, 276  
 Hernandez L, 368  
 Hernandez-Yago J, 311  
 Herold A, 697  
 Heromi A, 314  
 Herre EA, 371  
 Herrera-Estrella L, 513, 548  
 Herrmann R, 479, 480  
 Herrmann RG, 692, 702  
 Hershey HP, 226  
 Hertig C, 130, 134, 138, 145, 146  
 Hervé P, 628, 636  
 Herweijer M, 617  
 Hess JL, 132, 145  
 Hess WR, 515  
 Hesse H, 434, 435, 437, 442, 512, 514, 515  
 Hetherington AM, 173  
 Hetherington PR, 464  
 Heuer B, 201  
 Heymann JB, 482, 483, 493  
 Heyn ANJ, 462  
 Heyser JW, 462  
 Hibino T, 260  
 Hideg E, 552, 553, 678  
 Higashi S, 542, 544, 546, 547, 549, 550, 552, 554-56  
 Higgins CF, 596  
 Higgins TJV, 333  
 Higgins VJ, 105, 109  
 Higgs DC, 219  
 Higuchi T, 311  
 Hildebrand DF, 260  
 Hildebrandt M, 38  
 Hildebrandt V, 596  
 Hildenbrandt G, 265  
 Hiles I, 645  
 Hilgarth C, 600, 601, 610, 615  
 Hill H, 488  
 Hill LM, 441, 442  
 Hill P, 27, 32  
 Hill RD, 383  
 Hill SA, 196, 197, 205  
 Hiller RG, 686, 690, 697, 698, 700, 701, 703  
 Hilling B, 340  
 Hills MJ, 410, 630, 645, 647  
 Hinch DK, 285  
 Hinchee MA, 301  
 Hind C, 657, 665, 672  
 Hind G, 480  
 Hinkle DC, 91  
 Hinrichs W, 687, 689  
 Hinz G, 329, 336, 339, 340  
 Hirasawa M, 578  
 Hirata Y, 357  
 Hirayama BH, 618  
 Hirayama T, 381, 394, 560  
 Hirel B, 574, 576, 578, 585  
 Hirner B, 596, 600, 601, 603  
 Hiroka Y, 136, 139, 147  
 Hironaka CM, 134, 138  
 Hirose T, 514  
 Hirsch S, 53  
 Hirst EL, 446  
 Hirt H, 106, 108, 109  
 Hitel B, 576  
 Hitz WD, 548  
 Hiyane Y, 53, 55, 57  
 Hjelmgren T, 86  
 Hlousek-Radojicic A, 417, 425  
 Hmyene A, 628  
 Ho T-HD, 386, 390, 392, 397  
 Hobe S, 695, 704  
 Hochberger A, 135, 138  
 Hodge R, 637, 639, 640, 643  
 Hodge SK, 463, 464  
 Hodgson RJ, 203, 206, 207  
 Hodson MJ, 454  
 Hoehn A, 672, 675  
 Hoekstra FA, 388, 389  
 Höfer M, 609  
 Hoff T, 571, 572  
 Hoffelt M, 628, 629  
 Hoffman LM, 334  
 Hoffmann H, 314  
 Hoffmann NL, 301  
 Hoffmann P, 662, 670  
 Hoffmann W, 598, 599  
 Hoffmann-Benning S, 454  
 Hofig A, 543, 559  
 Hoflack B, 344  
 Hofmann B, 511, 512, 514, 516, 517, 520, 521  
 Hofmann S, 419, 632, 637  
 Hofstra G, 265  
 Hofte H, 645  
 Hoge JHC, 136, 139, 147  
 Hogetsu T, 309, 310  
 Hogland A-S, 333  
 Hogness D, 34  
 Hoh B, 329, 336, 339, 340, 342  
 Hohl M, 466  
 Höhmann S, 251  
 Hohn B, 89, 92  
 Høj PB, 468, 635  
 Hojrup P, 631  
 Holappa LD, 440  
 Holbrook SR, 596  
 Holdsworth MJ, 260, 316  
 Holliday R, 33  
 Hollinshead M, 344  
 Holloway P, 418  
 Holloway PW, 546  
 Holmes MG, 225  
 Holmuhamedov EL, 530  
 Holstein SEH, 160  
 Holt D, 134, 138  
 Holt DC, 134, 138, 141  
 Holt JS, 140  
 Holton TA, 248, 250, 513  
 Holtum JAM, 197, 199, 204  
 Holwerda BC, 336, 337, 341  
 Holzenburg A, 704  
 Holzer H, 616  
 Holzwarth AR, 657, 658, 670, 705  
 Homma H, 130  
 Hondred D, 226, 232  
 Hong SK, 304  
 Honore B, 55, 65  
 Hooper JK, 687  
 Hood EE, 453  
 Hood JEV, 109  
 Hood KR, 453  
 Hoogenraad NJ, 463, 465  
 Hoopes BC, 38  
 Hooykaas PJJ, 25, 131, 133, 136, 138, 139, 143, 144, 147  
 Hope AB, 500, 501  
 Hopfield JJ, 493  
 Hopkin K, 50, 58  
 Horemans N, 257  
 Horgan R, 301  
 Hori K, 187, 190  
 Horiguchi G, 544, 558  
 Horikosi T, 196  
 Horn MA, 106, 113, 114  
 Horovitz HR, 318  
 Horsch RB, 301  
 Härtensteiner S, 340, 597  
 HORTON P, 655-84; 656, 657, 659-65, 667, 669-71, 674-78  
 Horváth I, 558, 559  
 Horvitz HR, 318  
 Horvitz BA, 228  
 Hosaka K, 601  
 Hoshiko S, 264  
 Hoson T, 463, 465  
 Hou Y, 220, 223, 229  
 Houde M, 543, 559  
 Houlné G, 697-99  
 Houssa C, 524, 525  
 Houtchens KA, 163  
 Howald-Stevenson I, 339  
 Howard D, 81, 89, 93  
 Howard JB, 263  
 Howe CJ, 490, 493, 501  
 Howell K, 344  
 Howell KE, 331  
 Howell N, 500  
 Howell S, 54-56, 58, 65, 68  
 Howell SH, 117, 118, 136, 138, 139, 224, 231  
 Howland GP, 87, 88  
 Hrasnik C, 630, 645  
 Hrazdina G, 142, 202  
 Hresko RC, 606  
 Hsiao SC, 371

Hsieh C-L, 89  
 Hsu HT, 336, 340  
 Hsu LC, 599, 601  
 Hu W, 255, 260  
 Hu Z-H, 195, 197, 199, 200, 205  
 Huang AHC, 631  
 HUANG D, 477-508; 479, 480, 482-84, 486, 489-95  
 Huang L, 27, 28  
 Huang L-S, 482  
 Huang N, 512, 515  
 Huang U, 196  
 Huang WD, 108  
 Hubbard MJ, 104  
 Hubbell WL, 609  
 Huber DJ, 450, 463  
 HUBER JL, 431-44; 102, 110, 111, 117, 118, 193, 200, 201, 280, 281, 433, 436-40, 442, 519  
 Huber R, 131, 144, 696  
 HUBER SC, 431-44; 102, 110, 111, 117, 118, 193, 200, 201, 280, 281, 433, 436-40, 442, 519, 520  
 Huber TA, 584  
 Hubick KT, 277  
 Hudson A, 89  
 Hudspeith RL, 286-88  
 Huff A, 516, 520  
 Huggins R, 41  
 Hughes DW, 386  
 Hughes MA, 383, 543, 559, 637, 638, 644, 645  
 Hugly S, 546, 558  
 Huilgol RR, 501  
 Hull R, 16  
 Hulmes JD, 161, 162  
 Humbert S, 93  
 Hummel S, 513, 517, 596, 599, 601, 602  
 Humphries S, 80  
 Hunaiti AA, 137, 139  
 Hundal T, 557  
 Huner NPA, 666, 675, 701  
 Hunsperger JP, 574  
 Hunt I, 163  
 Hunte C, 196  
 Hunter T, 114, 116  
 Hunziker P, 452  
 Huppe HC, 186, 187, 193, 197, 199-201, 204  
 Huprikar SS, 596  
 Hurkman WJ, 331  
 Hurley D, 340  
 Hurry V, 660, 678  
 Hurt EC, 482, 501  
 Hussey PJ, 574  
 Huttly A, 383, 384  
 Huyer G, 339, 340  
 Hwang I, 254, 260, 264, 547, 548  
 Hwang KY, 633  
 Hyde SC, 596  
 Hyodo H, 255, 260

## I

Iba K, 544, 547, 548, 558  
 Ichas F, 530  
 Ichihara K, 416  
 Ichimura T, 51, 53-57, 60, 62, 65, 67  
 Ichimura-Ohshima Y, 53  
 Iida K, 465  
 Idler KB, 574, 576  
 Igarashi S, 41  
 Iglesias AA, 275, 277, 280, 285, 287  
 Iglesias-Prieto R, 698, 701  
 Ihara M, 85  
 Iiyama K, 311, 447, 451, 452, 465  
 Ikenaga M, 83  
 Ikeuchi M, 691, 693  
 Iki K, 450  
 Ikuma H, 522  
 Ikuta N, 54, 60  
 Imai H, 417, 425  
 Imaseki H, 547  
 Imazumi K, 59  
 Ingebritsen TS, 103  
 Ingelbrecht I, 25, 26, 30, 31, 39  
 Ingold E, 305, 309, 311  
 INGRAM J, 377-403  
 Inkson C, 598  
 Inoue H, 83  
 Inoue K, 342  
 Inoue M, 278  
 Inoue Y, 670  
 Inouhe M, 463, 468  
 Interrante R, 488  
 Inzé D, 27, 80, 105  
 Ireland RJ, 199, 204, 582, 584  
 Irie K, 54, 57  
 Irisawa H, 175  
 Irish VF, 356  
 Irgang KD, 688  
 Irzyk GP, 134, 138, 140, 141  
 Ishida S, 134, 138, 143, 149  
 Ishiguro M, 259  
 Ishiguro S, 513, 527  
 Ishihara K, 258  
 Ishii C, 86  
 Ishii K, 107  
 Ishii S, 263  
 Ishii T, 451  
 Ishikawa T, 129, 130, 149, 150  
 Ishitani M, 381, 382, 388, 396  
 Ishizaki O, 545  
 Ishizaki-Nishizawa O, 544, 545, 549  
 Isobe M, 515, 526  
 Isobe T, 50-57, 60, 62, 65-68  
 Ito Y, 526  
 Itoh K, 258  
 Iturriaga G, 396  
 Itzhaki H, 133, 135, 138, 147, 149  
 Iu B, 383, 543, 559  
 Ivanov AG, 675  
 Iwahashi J, 54, 55, 61

Iwanago S, 54, 55, 61  
 Iwanari H, 255  
 Iwasaki I, 178  
 Iwasaki T, 302, 383, 391, 393  
 Iwata S, 479, 618  
 Iyer MG, 200  
 Izawa T, 391  
 Izui K, 274-76, 278, 281, 282, 285-89

## J

Jabben M, 225  
 Jablonka E, 42  
 Jachetta JJ, 141  
 Jack PL, 383, 543, 559  
 Jackowski S, 544  
 Jackson D, 365  
 Jackson JA, 220, 230  
 Jackson JB, 499  
 Jackson JF, 83  
 Jackson P, 50, 51  
 Jackson SA, 389  
 Jackson SD, 513  
 Jacobs F, 574, 576  
 Jacobs M, 79, 579  
 Jacobs WP, 301, 302  
 Jacobsen E, 513, 517, 521, 522  
 Jacobsen HJ, 464  
 Jacobsen S, 187, 190  
 Jacoby WB, 130  
 Jacqmar A, 525  
 Jagendorf AT, 90  
 Jagiello I, 109, 111, 116  
 Jähmig F, 605, 606  
 Jahns P, 662, 664, 666, 670, 676  
 Jakob U, 385  
 Jakobsen KS, 386, 393, 640  
 James AT, 558  
 James DW Jr, 410, 425, 558  
 James F, 512, 515, 521, 584  
 James P, 697, 698  
 Jamet E, 512, 514  
 Jan SP, 511, 514  
 Janc JW, 275, 276  
 Jang J-C, 432, 514, 520, 525, 530, 586  
 Janosch P, 54  
 Janoudi AK, 227, 230  
 Jansson S, 656, 657, 666, 676, 687, 691, 693, 697, 701, 702, 704  
 Jap BK, 482  
 Jarillo JA, 54, 55, 66  
 Jarvis MC, 450, 455, 458  
 Jarvis RP, 548  
 Jaspers PAM, 219  
 Jauch P, 611  
 Jauniaux JC, 598-600, 604  
 Jaworski EG, 134, 138, 141  
 Jaworski JG, 409, 415, 417, 425, 544-46  
 Jeblick W, 119, 146  
 Jefferson RA, 367  
 Jeffree CE, 357, 418

- Jeffrey SW, 690  
 Jegla DE, 356  
 Jellito T, 192  
 Jenkins GI, 220, 230  
 Jenkins JN, 637, 642  
 Jenkins ME, 81, 89, 93  
 Jenks M, 420, 424  
 Jenks MA, 407, 408, 413,  
 419-21, 423, 642  
 Jennings PA, 41  
 Jennings RC, 658, 674, 705  
 Jensen AB, 379, 386, 394  
 Jensen BC, 39  
 Jensen RA, 202  
 Jensen RG, 169, 382, 388, 395,  
 396, 515, 525  
 Jeong B-K, 329, 336, 339, 340  
 Jepson I, 134, 138, 141  
 Jermyn MA, 454  
 Jernstedt JA, 370  
 Jeuken MJW, 396  
 Jia YW, 706  
 Jiang L, 395  
 Jiao JA, 275, 277, 280-82,  
 286, 287  
 Jiao S, 697, 698  
 Jiménez B, 513  
 Jimenez ES, 579  
 Joffroy I, 312  
 Johannes E, 173-76  
 John CL, 117, 119  
 John I, 260  
 JOHN P, 245-71; 249,  
 255-57, 263  
 Johnsen G, 698  
 Johnson CB, 225  
 Johnson CV, 41  
 Johnson DA, 488, 489, 493  
 Johnson E, 81, 219, 220, 225,  
 230, 465  
 Johnson EM, 486  
 Johnson G, 662  
 Johnson GN, 675  
 Johnson JF, 193  
 Johnson K, 106, 110  
 Johnson KR, 263  
 Johnson R, 512, 513, 517, 525  
 Johnson TC, 545  
 Johnson WB, 548  
 Johnston M, 599  
 Johri MM, 355, 356  
 Joliot A, 482, 483, 496, 501,  
 502  
 Joliot P, 482, 483, 494, 496,  
 499, 501, 502  
 Jolliot A, 419, 628-30, 635,  
 639, 641  
 Joly RJ, 420  
 Jonak C, 116  
 Jones AM, 130, 143, 233  
 Jones D, 52, 54-58, 61, 62, 65,  
 68  
 Jones DD, 519  
 Jones DHA, 67, 68  
 Jones HP, 176  
 Jones JR, 525  
 Jones JT, 382-84  
 Jones K, 581  
 Jones MW, 102, 115  
 Jones OTG, 546  
 Jones PA, 78  
 Jones RJ, 524, 525  
 Jones RL, 171, 176  
 Jones RW, 500  
 Jordan BR, 83, 84, 88  
 Jordan ET, 226, 232  
 Jordano J, 383, 385, 386  
 Jorgensen R, 27, 29, 30, 32  
 Jorgensen RA, 26  
 Jorgenson CA, 357, 360, 369  
 Jörnvall H, 131, 259  
 José-Estanyol M, 453  
 Joseleau JP, 458  
 Jouaville LS, 530  
 Joudrier P, 634, 637  
 Jouenne T, 629, 641  
 Jourmet EP, 515  
 Jovine RVM, 698  
 Joy KW, 572, 575, 582, 584-86  
 Joyard J, 636  
 Ju GC, 581  
 Juliano BO, 331  
 Julienne M, 628, 633  
 Jullien M, 574  
 Jund R, 601  
 Jung H, 607-9  
 Jung HJG, 452, 469  
 Jung K, 607-9  
 Jung US, 389  
 Junge W, 496, 502, 664  
 Jürgens G, 220, 229, 232, 303,  
 304  
 Jussila M, 599  
 Just G, 452  
**K**  
 Kaback HR, 598, 606-10  
 Kaddoura RL, 356, 369  
 KADER J-C, 627-54; 419,  
 628-31, 633, 635, 637, 638,  
 641, 642, 645, 647  
 Kado RT, 176, 177  
 Kaeppler SM, 42  
 Kaestner KH, 546  
 Kahn A, 510  
 Kahn ML, 582  
 Kai T, 281, 282, 287  
 Kai Y, 278  
 Kaibuchi K, 54, 57  
 Kaimal KS, 200  
 Kaiser LM, 255, 256  
 Kaiser WM, 110, 111, 117, 118  
 Kajiya H, 260, 264  
 Kalaus C, 630, 645  
 Kalla R, 419, 630, 637, 638,  
 640, 641  
 Kallas T, 479  
 Kalman S, 465  
 Kamachi K, 574  
 Kamada H, 386  
 Kamada Y, 389  
 Kami J, 86  
 Kamiryo T, 629  
 Kamisaka S, 465  
 Kamiya Y, 231, 232, 248, 252,  
 254  
 Kammerer B, 601, 617  
 Kampfenkel K, 605  
 Kamyab A, 453  
 Kanai Y, 602  
 Kandasamy MK, 117, 119  
 Kanegae T, 260, 264  
 Kaneko Y, 419  
 Kanellis AK, 579  
 Kanervo E, 557  
 Kaneto Y, 630, 641  
 Kannangara CG, 419, 629, 690  
 Kanofsky JR, 81  
 Kano-Murakami Y, 288, 289  
 Kao CH, 512, 516  
 Kaplan BE, 30  
 Kaplan DR, 355  
 Kappus H, 145, 146  
 Karabourniotis G, 281  
 Karamanos Y, 515  
 Karlin-Neumann GA, 27, 28,  
 217, 231  
 Karran P, 85, 86  
 Karrasch S, 695  
 Karrer EE, 512, 514, 515, 518  
 Karssen CM, 112  
 Karuppiiah N, 514  
 Kasahara M, 610  
 Kasai Z, 335  
 Kasamo K, 164, 168  
 Kasemir H, 228  
 Kaska DD, 249, 258  
 Kasugai I, 105  
 Katagiri T, 381, 382, 388, 393  
 Katcoff D, 698  
 Kates M, 558  
 Kato A, 54, 66, 514  
 Kato I, 464  
 Kato M, 582, 583  
 Kato T, 91, 264  
 Kato Y, 450, 451  
 Katoh S, 510, 516, 521, 524  
 Katsuki H, 276, 278, 286  
 Kaufman LS, 217, 228, 231  
 Kaufman PB, 514, 522  
 Kaus H, 119, 146  
 Kavli B, 86  
 Kawabata S, 54, 55, 61, 574  
 Kawai S, 258  
 Kawakami N, 574  
 Kawamura T, 274, 275, 281,  
 285, 286, 289  
 Kawasaki S, 310  
 Kawata EE, 331  
 Kay CM, 387  
 Kay SA, 217, 226  
 Kayastha AM, 194  
 Kays SJ, 204  
 Kazarinova-Fukshansky N, 371  
 Kearns EV, 546  
 Keegstra K, 286, 425, 637,  
 645, 646  
 Keenan TW, 484  
 Keijzer CJ, 420, 424

## 730 AUTHOR INDEX

- Keith B, 79, 226  
 Keller B, 310, 315, 316  
 Keller JM, 226, 410, 425  
 Kellermann J, 190  
 Kelly GJ, 206  
 Kelly TJ Jr, 546  
 Kemna I, 178  
 Kemp JD, 334  
 Kendall AC, 146, 571-75, 578, 580  
 Kende H, 255-57, 260, 263, 286, 425, 454, 463, 465, 637, 645, 646  
 Kendrick RE, 217, 219, 225, 231, 232  
 Kenigsbuch D, 233  
 Kennedy EP, 597  
 Kennedy RA, 196, 198, 201  
 Kenny JW, 547, 548  
 Kenyon CJ, 91  
 Kerckhoffs LHJ, 219  
 Kerfeld CA, 488  
 Kerckhoffs LHJ, 217  
 Kermode AR, 395  
 Kern H, 344  
 Kern HF, 331  
 Kern R, 219, 223, 232, 584  
 Kernen P, 666, 667  
 Kerr JFR, 316  
 Kerr P, 433  
 Kervinen J, 337  
 Keryer E, 279, 281, 285-87, 289  
 Kessler JR, 465  
 Kessler W, 515  
 Kessmann H, 146  
 Ketley JN, 130  
 Ketterer B, 130  
 Key JL, 109, 118, 135, 138, 147, 149, 333  
 Keys AJ, 146, 572, 573  
 Khalil M, 107  
 Khan RI, 333  
 Kholodenko BN, 202  
 Khurana JP, 218, 221, 227, 228  
 Kibak H, 161  
 Kidou S, 54, 66  
 Kieber JJ, 224  
 Kielczawa J, 657, 665, 672  
 Kieliszewski MJ, 447, 453  
 Kigel J, 468  
 Kijima H, 178  
 Kikuchi A, 54, 55, 57, 59  
 Kilby NJ, 25  
 Killian JA, 560  
 Kim C-S, 134, 138, 146  
 Kim EJ, 165-67  
 Kim JB, 462  
 Kim K, 86  
 Kim K-C, 134, 138, 146  
 Kim KK, 633  
 Kim SH, 465  
 Kim S-K, 302, 692, 702  
 Kim SR, 511, 517  
 Kim ST, 84, 85, 218, 220, 228  
 Kim SY, 513, 514, 517, 527  
 Kim WT, 260, 331, 334, 335, 342, 344  
 Kim Y, 165, 166  
 Kimelman D, 38  
 Kindle KL, 512  
 Kinet JM, 524  
 King B, 574, 576  
 King GA, 584  
 King J, 458, 459, 462  
 King PJ, 135, 138, 143  
 King RW, 524  
 Kinlaw CS, 637, 638  
 Kinney AJ, 548  
 Kinoshita N, 104, 105  
 Kinzer SM, 259  
 Kippers A, 632, 637, 643, 645, 647  
 Kirk JTO, 359  
 Kirkness EF, 597, 598  
 Kirsch T, 342, 343  
 Kirschner MW, 38  
 Kirwin PM, 486  
 Kiss F, 201, 205  
 Kitano H, 304  
 Kivirikko KI, 249, 258, 262  
 Kiyosue T, 135, 138, 381-83, 386, 388  
 Klarman WL, 87  
 Klausner RD, 38  
 Klebl F, 596, 603, 616  
 Kleczkowski LA, 572  
 Klee HJ, 301  
 Klein D, 510, 514, 516, 517, 519, 525, 526, 530  
 Klein RR, 433-35, 437, 438, 441, 442, 515, 692, 702  
 Klein WH, 219  
 Kleinig H, 249, 259  
 Klekowski EJ, 92, 358, 359, 371  
 Klemens K, 107  
 Klemesdal SS, 640  
 Klessig DF, 146  
 Klimczak LI, 60  
 Klingenberg M, 604, 605  
 Klingler J, 695, 704  
 Klockenbring T, 196  
 Klomprens KL, 454  
 Kloppstech K, 217, 384, 686, 693, 701, 702  
 Kluge M, 285, 287  
 Klukas O, 689  
 Knaff DB, 498, 503, 578  
 Knauf VC, 548  
 Kneusel RE, 305, 312  
 Knight JS, 512  
 Knight ME, 312, 314  
 Knight MR, 173  
 Knoetzel J, 691, 693, 704  
 Knowles JR, 277  
 Knowles VL, 190, 195-97, 199, 205  
 Knox JP, 453, 458, 459, 462  
 Knudsen J, 631  
 Knust E, 335  
 Knutson DS, 547, 548  
 Ko CH, 599, 600, 603, 604  
 Kobayashi H, 305-8  
 Kobayashi M, 231, 232  
 Kobayashi T, 84, 90  
 Kobe A, 582, 583  
 Kobres RE, 336  
 Koch GLE, 330  
 KOCH KE, 509-40; 510, 512-14, 516-22, 524  
 Kochansky J, 438  
 Kochian LV, 596  
 Kodama H, 544, 558  
 Koeller DM, 38  
 Kogami H, 289  
 Kohno J, 255  
 Koike G, 85  
 Koike S, 542  
 Koike T, 289  
 Koizumi A, 634, 637  
 Koizumi M, 381, 382, 384  
 Kojima M, 110, 117, 118  
 Kolarov J, 601  
 Kolarov N, 601  
 Kolattukudy PE, 406, 411-13, 417, 419, 424, 630, 632, 637, 641-43, 647  
 Kolditz-Jawhar R, 146  
 Koller A, 599  
 Kollipara SS, 151  
 Kollmann R, 357, 368  
 Kolodner RD, 90  
 Koltunow AM, 639, 640  
 Kolubayev T, 657  
 Komamine A, 300, 302, 304, 305, 307, 309, 311, 313, 316, 522  
 Kombrink E, 135, 138, 146  
 Komeda Y, 220, 229, 234, 513  
 Komiya T, 54, 55, 61  
 Komor B, 613  
 Komor E, 192, 198, 598, 600, 603, 612, 613, 615, 616, 637  
 Komvies AV, 140  
 Komvies T, 140  
 Kondo A, 247  
 Kondo S, 83  
 Konings WN, 603  
 Konjevic R, 218, 221, 228  
 Konturi M, 570  
 Koonce LT, 311  
 Koornneef M, 112, 217-19, 224, 225, 230, 252, 254, 408, 420, 421, 423, 424, 646  
 Kooter JM, 27, 28, 251, 264  
 Kopito RR, 596, 597  
 Kormanik PP, 186, 191, 200  
 Kormelink FJM, 447  
 Korolova OY, 675  
 Korthout HAAJ, 54, 55, 62  
 Kortt AA, 386, 554, 559  
 Koso EM, 641, 642  
 Kossmann J, 513, 514, 516, 517, 675  
 Koster KL, 388, 389  
 Kostic NM, 488, 493  
 Kotarski A, 34  
 Kotilainen M, 35, 632, 637, 638, 643

- Kovács E, 553  
 Kovaleva V, 337  
 Kovtun Y, 522  
 Kowalik W, 200  
 Kozarich J, 130, 139, 145, 146  
 Krab K, 502  
 Kraemer KH, 82  
 Kraft M, 421  
 Kramer DM, 482, 495, 500, 501  
 Kramer JA, 263  
 Krämer R, 605  
 Krantz DE, 335  
 Krapp A, 510-12, 514, 516, 517, 519-21, 525, 526, 530  
 Kraulis PJ, 486  
 Kraus PFX, 246  
 Kraus TE, 265  
 Krause A, 637, 644  
 Krause GH, 656, 661, 662, 666, 670, 675  
 Krause K-P, 434, 435, 437, 441, 442  
 Krauss N, 687, 689  
 Krebbers E, 26  
 Kreis M, 116, 526, 586  
 Kremer E, 41  
 Kress WJ, 454  
 Kretsch T, 217  
 Kreuz K, 129, 150, 597  
 Krickler MC, 42  
 Kridl JC, 548  
 Krieger A, 662, 677  
 Krishnan HB, 331, 334, 335, 342, 344  
 Krishtalik L, 501  
 Krivi GG, 134, 138  
 Kröger K, 453  
 Kröger N, 454  
 Krogmann DW, 488, 489, 493  
 Kroi M, 666, 701  
 Kroon JTM, 251, 264  
 Kroth-Pancic PG, 698, 700  
 Kroymann J, 510, 513, 517, 521, 530  
 Kruckeberg AL, 602  
 Kruger A, 674  
 Krüger I, 285  
 Kruger NJ, 191, 205  
 Kruip J, 483, 676, 698, 704, 705  
 Krupa Z, 666, 667  
 Kruse M, 606  
 Ku MSB, 288  
 Kuan J, 605  
 Kubasek WL, 231  
 Kuboi T, 314  
 Kubota I, 629  
 Kubota K, 191, 197  
 Kuc J, 314  
 Kuck U, 480  
 Kuehnle AR, 358  
 Kühlbrandt W, 482, 657, 687, 691, 693, 695, 702-4  
 Kuhlmeier C, 370, 419, 632, 637, 639, 640  
 Kumar A, 202  
 Kumar S, 512  
 Kunala S, 91  
 Kunkel TA, 609  
 Kunst L, 410, 415  
 Kunz C, 31  
 Künzler P, 41  
 Kuo JF, 173  
 Kuo YH, 512, 515  
 Kuras R, 494, 495  
 Kurkdjian A, 169  
 Kurkela S, 383, 543, 559  
 Kurnikov IV, 492  
 Kuroda H, 136, 139  
 Kuroda S, 54, 57, 59  
 Kuromoni T, 106, 112  
 Kusaba M, 134, 136, 139, 147  
 Kushnir S, 27-29  
 Kusters R, 560  
 Kutchan TM, 135, 138, 246  
 Kutny RM, 115  
 Kutschera U, 454, 463  
 Kuusinen A, 599  
 Kuwano R, 51, 53-55, 65  
 Kwa SLS, 705  
 Kwak J-M, 134, 138, 146  
 Kwak S-S, 248, 254  
 Kwart M, 596, 599, 601  
 Kwiatkowski J, 265  
 Kwok SF, 220, 222, 223, 229, 232, 233  
 Kwok W, 88  
 Kwon HB, 513  
 Kynoch PAM, 50, 51  
 Kyoizuka J, 289
- L**  
 Laasch H, 662  
 Laberge S, 383, 543, 559  
 LaCroix JD, 522  
 Lacroute F, 596, 601  
 Lacuesta M, 291  
 Ladenstein R, 131, 144  
 Lado P, 164, 168  
 LaFayette PR, 333  
 LaFoe D, 88  
 Legendijk EL, 53, 55, 63  
 Lagrimini LM, 313  
 Lagunas R, 616, 617  
 Lahti R, 167  
 Lai K, 599, 617  
 Lai M-T, 252, 265  
 Lai S, 160-63  
 Lai V, 304, 316  
 Lainé A-C, 313  
 Laliberte J-F, 543, 559  
 Lallemant J-Y, 451, 452  
 Laloi M, 599  
 Lam E, 316, 390, 391  
 LAM H-M, 569-93; 512, 515, 571, 572, 581, 584, 586  
 Lam TBT, 311, 447, 451, 452, 465  
 Lamb C, 81, 145, 146  
 Lamb CJ, 146, 310, 314, 315, 338, 513  
 Lamb MJ, 42  
 Lambers H, 521  
 Lambert RJ, 570  
 Lamoureux GL, 129, 131, 139-41, 150, 151  
 Lampion DTA, 447, 453  
 Lancelle SA, 334  
 Landt M, 54, 55, 61  
 Lane B, 303, 355  
 Lane MD, 276, 546  
 Lång V, 386, 543, 559  
 Langdale JA, 288, 303, 355  
 Lange T, 248, 252, 254, 256, 260  
 Lange W, 697, 698  
 Langebartels C, 265  
 Langen R, 492  
 Langenaur HD, 367  
 Langenheim JH, 469  
 Langer B, 83  
 Langhans RW, 425  
 Langis R, 544, 559  
 Langlet O, 367  
 Lapiere C, 300, 311  
 Lardizabal K, 410, 415  
 Lark E, 547, 548  
 Larkins BA, 330, 331, 334, 335  
 Larkum AWD, 686, 690, 697, 698, 700, 701  
 La Roche J, 689, 690, 698, 700  
 Larsen F, 386  
 Larsen PB, 260, 336, 340  
 Larsen PM, 117, 119  
 Larson RJ, 582  
 Larsson C, 176  
 Lasalles JP, 176, 177  
 Lassner MW, 410, 415  
 Last RL, 79, 82  
 Latché A, 249, 255, 256  
 Lathe R, 41  
 Laties GG, 316  
 Latzko E, 197, 199, 204, 206, 277  
 Läufer P, 160, 611  
 Laughner B, 54  
 Lauter FR, 603  
 Lauvergeat V, 312, 313  
 Laval J, 86  
 Lavergne J, 658  
 Law RD, 197, 198, 200, 206, 207, 280  
 Lawlor DW, 570  
 Lawrence CC, 260  
 Lawrence CW, 91  
 Lawrence JB, 41  
 Lawrence SD, 54  
 Lawrence W, 340  
 Lawson JE, 115, 601  
 Lawton KA, 146  
 Lawton MA, 118, 146  
 Lay J, 309  
 Lay MM, 140, 141  
 Lay VJ, 134, 138, 141  
 Layzell B, 574, 576  
 Lazarus CM, 248, 254  
 Lea PJ, 146, 570-73, 575, 577-80, 582-84

## 732 AUTHOR INDEX

- Leach FS, 36, 41  
 Leah R, 468, 637, 638, 640  
 Leaver CJ, 512, 514, 515, 525, 526, 530, 601  
 Lechleiter JD, 530  
 Lechtenberg D, 660  
 le Coutre J, 480  
 LeDoux SP, 89  
 Lee A, 220, 222, 223, 229, 232, 233  
 Lee AI, 665, 666  
 Lee ALC, 692  
 Lee C, 334  
 Lee CB, 553  
 Lee D, 315  
 Lee H, 118, 687, 688  
 Lee H-C, 131, 177  
 Lee HT, 511, 514, 525  
 Lee I-S, 131, 139, 141  
 Lee JW, 344  
 Lee JY, 633-35  
 Lee M, 42  
 Lee P, 260  
 Lee S, 117, 118, 136, 138, 139  
 Lee SP, 315  
 Leegood RC, 117, 118, 201, 274, 280, 281, 291  
 Lefebvre DD, 116, 192, 194, 196, 198, 199  
 Lefell DJ, 91  
 Leffers H, 55, 65  
 Legge RL, 145, 147, 256  
 Le Guen L, 586  
 Lehmann MS, 633, 634  
 Lei M, 453  
 Leibach FH, 602  
 Leidreiter K, 520  
 Leigh RA, 340, 612  
 Leinhard S, 512, 514, 518, 522, 524  
 Leissner S, 117, 118, 136, 138, 139  
 Leistner E, 408  
 Lejeune P, 524  
 Lelièvre J-M, 249, 255, 256  
 Lem NW, 545, 546  
 Lemaire C, 480  
 Le Maréchal P, 275, 281, 285  
 LeMeur M, 41  
 Lemieux B, 407, 408, 410, 412, 413, 420, 421, 423, 424, 547, 548  
 Lemieux C, 27, 29  
 Lemoine Y, 481-83  
 Lending CR, 331, 334  
 Lenhart B, 277  
 Leopold AC, 388  
 Lepiniec L, 196, 205, 206, 274, 275, 279-82, 285-87, 289  
 Leprince O, 379, 388  
 Lerchl J, 516, 522  
 Lerner HR, 287  
 Lerot GE, 492  
 Lers A, 701  
 Les DH, 454  
 Lessire R, 406, 409, 410, 412, 415, 416  
 Letham S, 220, 223, 224, 226, 231  
 Leube MP, 106, 112, 113, 380, 394  
 Leung CT, 257  
 Leung J, 106, 112, 113, 380, 390, 394, 397  
 Levanony H, 329, 331-34, 344  
 Leverenz JW, 662, 666, 670  
 Levin DE, 389  
 Levine A, 81, 145, 146  
 Levy H, 701  
 Lev-Yadun S, 301  
 Lewis DA, 599, 602  
 Lewis EB, 40  
 Lewis M, 331  
 Lewis NG, 311, 312, 452  
 Leydecker M-T, 514, 524, 586  
 Leykam JF, 453  
 Leyva A, 54, 55, 66, 315  
 Li B, 275, 282-84  
 Li C, 385  
 Li D, 201, 202  
 Li H, 217, 220, 225, 229, 230  
 Li JJ, 93  
 Li JY, 82  
 Li L, 248, 252, 260, 264  
 Li M-G, 574, 576  
 Li N-Q, 134, 138  
 Li Q-B, 543, 559  
 Li R, 689, 690  
 Li S, 54  
 Li T, 542  
 Li W, 113, 117, 118  
 Li XH, 336, 340  
 Li X-N, 196, 198, 331-35  
 Li YF, 85, 301  
 Li ZC, 464  
 Liang H, 599, 604  
 Liang X, 314, 315  
 Libbenga KR, 131, 136, 138, 139, 143, 147  
 Lichtenstein C, 88  
 Lichtlé C, 698, 700, 703  
 Lichtscheibl I, 334  
 Liddington R, 67  
 Lieber MR, 89  
 Lifschitz E, 370  
 Lifschitz S, 228  
 Lightfoot DA, 574  
 Lightner J, 547, 548  
 Lightner VA, 545  
 Lill R, 560  
 Lim E, 410, 425  
 Lin C, 218, 220, 225, 228  
 Lin L, 383  
 Lin M, 190, 194, 199, 200, 204  
 Lin PP-C, 109, 118  
 Lin Q, 105-8  
 Lincoln JE, 259  
 Lind B, 263  
 Lindahl T, 76, 78, 80, 85, 86  
 Lindberg RA, 114  
 Lindbo JA, 29, 31  
 Linders K, 35  
 Lindsey K, 525  
 Lindstedt S, 259  
 Ling XF, 34  
 Lingelbach K, 468  
 Lingeman RG, 30  
 Lingle WL, 379, 386  
 Link TA, 491, 493, 601  
 Linn F, 37, 42  
 Linnemeyer PA, 224  
 Linnestad C, 419, 630, 637, 638, 640, 641  
 Linstead P, 367  
 Linstead PJ, 458, 459, 462  
 Lipshutz RJ, 332  
 Liscum E, 217, 218, 220, 221, 223, 225, 227, 228  
 Liskens HF, 83  
 Listowski I, 130  
 Little CHA, 300, 302  
 Litts JC, 386, 387  
 Litwack G, 130  
 Liu C, 264  
 Liu D, 54, 60, 62, 66, 67, 414, 415  
 Liu J, 275  
 Liu J-H, 383  
 Liu KC, 516  
 Liu LF, 512, 515, 516  
 Liu RSH, 667  
 Liu W, 224, 231  
 Liu XY, 513, 516, 517  
 Liu Z, 81, 89, 93  
 Liuolia V, 706  
 Livne A, 698  
 Ljungberg U, 692, 702  
 Ljungdahl PO, 598  
 Liemould S, 515  
 Lloyd AM, 130, 136, 139, 141, 142, 150  
 Lloyd EJ, 520  
 Loake GJ, 513  
 Lobeck K, 696  
 Lock PA, 468  
 Lockau W, 501  
 Locke J, 34  
 Lodenkötter B, 617  
 Loercher L, 216  
 Loesch DZ, 41  
 Loewus FA, 257  
 Logan BA, 660, 661, 666, 675  
 Lois R, 314, 315  
 Lokstein H, 662, 670  
 Loll PJ, 484  
 Lomax JA, 448  
 LOMAX TL, 227  
 Lommel SA, 368  
 Long SP, 80  
 Lönnig W, 26  
 Loo DDF, 611-13, 618  
 Lopes MA, 334  
 Lopez F, 383  
 Lopez MC, 645  
 Lopez MF, 135, 138  
 Lopez S, 617  
 Lopez-Juez E, 219, 231, 232  
 Lorenz K, 512, 514, 518, 522, 524  
 Los DA, 547, 552, 554, 559

# AUTHOR INDEX 733

- Lostao MP, 618  
 Lottspeich F, 601, 605  
 Loughney K, 40  
 Loulakakis CA, 579  
 Loulakakis KA, 579  
 Lowe MK, 469  
 Lowrey KB, 453  
 Loyola-Vargas VM, 579  
 Lu AYH, 128, 130, 131, 145  
 Lu C, 91  
 Lu CY, 513  
 Lu G, 53-58, 60-63, 65-68  
 Lu P, 370  
 Luan S, 113, 117, 118  
 Lucas WJ, 330, 368, 596, 641  
 Ludevid D, 332, 334  
 Ludevid MD, 395  
 Ludwig B, 479, 618  
 Ludwig T, 344  
 Lue M-Y, 118, 525  
 Luersen KR, 136, 139  
 Lugert T, 527  
 Lullien V, 637  
 Lullien-Pellerin V, 634  
 Lumsden PJ, 217  
 Lund G, 632, 637  
 Lundberg LG, 490  
 Lundqvist U, 420, 422  
 Lunn JE, 433  
 Linneborg A, 637, 638  
 Lunness PA, 105, 106, 108  
 Luo M, 383  
 Luskey KL, 335  
 Luttenegger DG, 463  
 Lüttge U, 162, 164, 168, 178  
 Lützelshwab M, 160  
 Luwe MWF, 256  
 Lycett GW, 249  
 Lydiat D, 630, 645, 647  
 Lynch D, 409  
 Lynch DV, 542  
 Lynch M, 41  
 Lyon GD, 118  
 Lyon MK, 704  
 Lyons JM, 542  
 Lyons PC, 151
- M**  
 Ma DP, 637, 642  
 Ma J, 81, 89, 93  
 Ma JF, 258  
 Maas C, 512, 518  
 Maathuis FJM, 169, 172  
 Mabuchi T, 83  
 MacAdam JW, 465  
 Maccarrone M, 260  
 Macdonald H, 135, 138, 143  
 Macdonald HR, 168, 169, 192  
 Macdonald SG, 54, 57, 59  
 Machida Y, 136, 139, 526  
 Mächler F, 524  
 Machold O, 693  
 Machota JH, 137, 142  
 Macino G, 40  
 Mackay S, 250, 251  
 Mackenbrock U, 143
- MacKintosh C, 102-4, 109, 110, 115, 117-19, 281  
 MacKintosh RW, 103, 106, 109-11, 117-19  
 MACMILLAN J, 1-21; 13, 15, 248, 252, 254, 263, 265  
 MacNellis T, 220, 222, 223, 229, 232, 233  
 MacNicol AM, 54, 55, 57, 59  
 MacRae E, 434, 435, 437, 441, 442  
 Macri F, 247  
 Maddaloni M, 420, 423, 424  
 Madgwick PJ, 331  
 Madgwick SA, 500, 501, 503  
 Madrazo J, 52, 55, 56, 58, 61, 68  
 Madrid S, 419  
 Madrid SM, 419, 631, 641  
 Madsen P, 55, 65  
 Mae T, 574  
 Maeda M, 165, 166  
 Maeda T, 111  
 Mäenpää P, 675  
 Maes O, 629, 641  
 Maeshima M, 165, 166  
 Magaldi AG, 704  
 Magalhaes JR, 581  
 Magasanik B, 599, 617  
 Magnuson K, 544  
 Magnusson F, 110  
 Mahajan R, 197, 199  
 Maier CV, 207  
 Mairinger T, 116  
 Majamaa K, 262  
 Majumdar ML, 601  
 Maki H, 80  
 Malhotra K, 84, 85, 218, 220, 228  
 Malhotra OP, 194, 202  
 Malik VS, 391  
 Malkin R, 483, 494, 704  
 Malkin S, 676  
 Mamiya G, 630-34, 638, 639  
 Manasse RS, 479, 499, 503  
 Mancinelli AI, 225  
 Mandel JL, 41  
 Mandel M, 161, 162  
 Mandel T, 370, 419, 632, 637, 639  
 Mandiyan S, 161, 162  
 Manetas Y, 281  
 Maniatis T, 37  
 Manigault P, 169  
 Mann AF, 572, 573, 577, 580  
 Mann DJ, 105  
 Manna S, 265  
 Mannervik B, 128, 130-33, 139, 145, 146  
 Mano S, 117, 118, 525  
 Manodori A, 698, 700  
 Manoel C, 606  
 Manolson MF, 161, 162, 169, 170  
 Mansagar ER, 141  
 Mansour VH, 83  
 Mantell SH, 356, 369
- Manteuffel R, 342  
 Marañón C, 518  
 Marbach J, 512, 514  
 Marcotrigiano M, 356-59, 361, 362  
 Marcotte WR Jr, 390, 391  
 Marcus A, 310  
 Marcus R, 492  
 Marger MD, 602, 607, 610  
 Margossian L, 259  
 Margot A, 78  
 Marini AM, 600  
 Marion D, 628, 629, 633, 634  
 Marks DB, 687  
 Markussen FH, 90  
 Markwalder HU, 451  
 Markwell J, 102, 109, 115  
 Markwell JP, 115  
 Marmaras SM, 582  
 Marmé D, 176  
 Marocco A, 333, 423  
 Marquardt J, 665, 688, 692  
 Márquez AJ, 578  
 Marr KM, 704  
 Marra M, 54, 55, 62  
 MARRS KA, 127-58; 130, 136, 139, 141, 142, 147, 149, 150  
 Marshak DR, 480  
 Marshall JS, 291  
 Marshall-Carlson L, 599, 602  
 Marsolier M-C, 576  
 Martens GJM, 53-55, 57, 62, 65, 66  
 Martienssen R, 358  
 Martin BL, 109, 661  
 Martin BR, 115  
 Martin CE, 546  
 Martin CP, 86, 250, 251, 315  
 Martin DJ, 463, 464  
 Martin F, 118, 515  
 Martin GEM, 610  
 Martin H, 52, 54, 55, 57, 61, 62, 65, 68, 453  
 Martin JA, 54, 55, 57, 59  
 Martin J-B, 521, 584  
 Martin T, 289, 512, 513  
 Martin W, 190, 251  
 MARTINEZ SE, 477-508; 479, 480, 482, 484, 486, 489, 492, 493, 495  
 Martínez-Izquierdo JA, 453  
 Martínez-Rivas JM, 106, 107, 109  
 Martínez-Zapater JM, 54, 55, 66, 391  
 Martini N, 149  
 Martinoia E, 129, 150, 178, 340, 597  
 Marty F, 340  
 Maru Y, 59  
 Maruyama H, 276  
 Marzilli LG, 87  
 Maskati A, 86  
 Mason H, 513, 517  
 Masri MS, 452  
 Massel MO, 512, 516, 525

## 734 AUTHOR INDEX

- Masson P, 36  
 Masuda Y, 463, 465  
 Masumura T, 574  
 Masuta C, 634, 637, 643  
 Mata JM, 257  
 Matanabe M, 578, 585  
 Matassi G, 35  
 Matern H, 616  
 Matern U, 130, 142, 305, 312  
 Mathews S, 219  
 Mathieu Y, 169  
 Matoh T, 577  
 Matsuda H, 175  
 Matsuda J, 249, 252, 255  
 Matsuda K, 450  
 Matsuda S, 54, 57, 59  
 Matsui K, 630, 632, 638, 639  
 Matsui M, 220, 233-35  
 Matsumoto H, 164, 168  
 Matsumoto K, 54, 57  
 Matsumoto S, 513  
 Matsumoto T, 263, 264  
 Matsumoto Y, 86  
 Matsunaga T, 85  
 Matsuo K, 41  
 Matsuo T, 548  
 Matsuoka K, 329, 342, 343  
 Matsuoka M, 258, 286-89  
 Mattei M, 54, 55, 62  
 Matthews BF, 582  
 Matthews BW, 696  
 Matthews DB, 501  
 Matthews KJ, 463, 464  
 Matthijs HCP, 689, 690  
 Matton DP, 118  
 Matzke AJM, 25, 26, 30  
 Matzke MA, 25, 26, 30  
 Mau S-L, 582  
 Mauch F, 130, 134, 137-39, 145-47  
 Maurel C, 178, 179, 341  
 Mauseth JD, 371  
 Mauxion F, 383, 395  
 Mavandji M, 27, 513  
 Maxon JM, 135, 138, 147, 149  
 Maxwell C, 666, 674, 675  
 May GD, 513, 517, 525, 527  
 Mayak S, 260  
 Mayer U, 303, 304  
 Mayer-Jackel RE, 108, 109  
 Mayfield SP, 530  
 Mazer J, 599, 602  
 Mazliak P, 628-30, 633, 642  
 Mazurova H, 581  
 McAinsh MR, 173, 391  
 McAleese SM, 196  
 McAllan AB, 451  
 McAuley-Hecht K, 86  
 McCaffery JM, 328  
 McCammon MT, 601  
 McCann MC, 446, 458, 459  
 McCann RO, 176  
 McCarty DR, 379, 380, 512, 514, 516, 518-20, 524  
 McCauley MM, 334  
 McClintock B, 36  
 McClung CR, 79, 217  
 McClure WR, 38  
 McCormac AC, 219, 226  
 McCormick F, 54, 57, 59  
 McCourt P, 417  
 McCray WH, 86  
 McCubbin WD, 387  
 McCue KF, 150, 378, 388  
 McCully ME, 519  
 McDaniel C, 356  
 McDermott G, 695, 696  
 McDonald RC, 610  
 McDonald RE, 425  
 McDonald TP, 610  
 McDonnell E, 521  
 McDonough VM, 546  
 McDougall GJ, 450  
 McDuffie E, 53  
 McElwain EF, 287  
 McGarvey DJ, 255  
 McGee T, 645  
 McGee TP, 645, 647  
 McGrath RB, 217  
 McGraw P, 599, 617  
 McHugh SG, 190  
 McKay RML, 703  
 McKenna E, 610  
 McKeon T, 409, 412  
 McKeon TA, 545-47  
 McKersie BD, 379, 388, 396  
 McKillop A, 231  
 McLennan AG, 87  
 McMichael RW, 102, 110, 193, 200, 201  
 McMichael RW Jr, 280, 281, 433, 436-40, 442  
 McNamara M, 453  
 McNaughton GAL, 110, 117, 119, 275, 281, 285  
 McNeil JA, 37  
 McNeil K, 525  
 McNeil M, 446, 448  
 McNellis T, 220, 225, 229, 230, 233, 234  
 McNevin J, 407, 408, 412, 413, 420, 423, 424  
 McNevin JP, 420, 424  
 McQueen-Mason SJ, 463, 464  
 McRae DG, 256  
 Medford JJ, 301  
 Medhy MC, 145  
 Mehlhorn H, 81, 147  
 Mehtali M, 41  
 Mei R, 692, 706  
 Meier H, 455, 458  
 Meier PJ, 597  
 Meijer EA, 631, 642, 647  
 Meikle PJ, 311, 447, 451, 463, 465  
 Meiners MS, 286, 289  
 Meinhardt SW, 498  
 Meinke D, 220, 229, 232, 233  
 Meinke DW, 304  
 Meins F, 27-29  
 Meins F Jr, 31  
 Meins JF, 31  
 Meister A, 132, 145, 146  
 Melan MA, 260, 264  
 Meldolesi J, 330  
 Melis A, 687, 693, 703  
 Mellon I, 93  
 MELO-OLIVEIRA R, 569-93; 571, 572, 581, 586  
 Mennes AM, 136, 139, 146, 147  
 Menssen A, 251  
 Menzlaff E, 601, 605  
 Merchant S, 488, 490  
 Merlo L, 204  
 Merrill AH Jr, 545  
 Merritt KD, 260  
 Mersey BG, 338  
 Mertens E, 190, 192  
 Meskiene I, 116  
 Messing J, 574  
 Mészáros LG, 177  
 Mets L, 706  
 Metz JG, 410, 415  
 Metzler MC, 303  
 Meusel I, 408  
 Meyer AH, 37, 42, 479, 480  
 Meyer CR, 285  
 Meyer DJ, 130  
 Meyer FG, 361  
 Meyer G, 217, 286  
 Meyer K, 106, 112, 113, 380, 394  
 MEYER P, 23-48; 25, 26, 30, 35-37, 39, 42  
 Meyer RC, 135, 138, 147  
 Meyer TE, 488, 489  
 Meyer-Gauen G, 190  
 Meza-Basso L, 543, 559  
 Miao G-H, 548, 576  
 Miao Z, 513  
 Micallef BJ, 440  
 Michalke W, 160  
 Michalowski CB, 286  
 Michel D, 383, 384, 391, 392  
 Michel H, 479, 481, 491, 618, 687  
 Michels CA, 600  
 Michels PAM, 190, 196, 199, 201, 202, 204, 207  
 Middleton EM, 84  
 Miede B, 666, 676  
 Mielchen C, 513  
 Miernyk JA, 102, 115, 186, 187, 190, 196, 201, 202  
 Miesfeld RL, 41  
 Mifflin BJ, 344, 570, 572-77, 582  
 Mignery GA, 513, 517, 530  
 Miki B, 190, 196, 202  
 Miki BL, 190  
 Mikkelsen JD, 412, 425  
 Milbradt B, 609  
 Millar AJ, 217  
 Miller AJ, 438, 612  
 Miller C, 338, 339  
 Miller DJ, 698, 701  
 Miller FR, 232  
 Miller KD, 140, 141  
 Miller ME, 524  
 Miller MG, 574



- Miller SS, 274, 285, 287, 577, 582  
Mimmack ML, 596  
Mimura CS, 596  
Min KS, 633  
Minami A, 305, 318  
Minami E, 286, 287  
Minet M, 596, 601  
Mino M, 391  
Minor W, 262, 263  
Miquel M, 410, 558, 636  
Mirkov TE, 383  
Misaki A, 450, 463  
Misera M, 220, 229  
Misera S, 220, 229, 232, 234  
Misra D, 605  
Misra LM, 333  
Misra S, 581  
Mitchell D, 81, 83, 84, 88, 93  
Mitchell DL, 81, 82, 88  
Mitchell JP, 522  
Mitchell JW, 10  
Mitchell P, 495, 598, 612  
Mitchell RAC, 570  
Mitchell VJ, 570  
Mitra S, 85  
Mittelsten Scheid O, 25, 26  
Mittler R, 316, 381, 385  
Miyamoto K, 465  
Miyano M, 263  
Miyata Y, 344  
Miyatani S, 105  
Mizoguchi T, 381, 382, 388, 393, 394, 560  
Mizuno K, 302  
Mizuno M, 328  
Mizutani F, 255, 257  
Mo J-Y, 80  
Modi S, 490  
Modrich P, 545  
Mohanty B, 192  
Mohanty N, 662, 669, 677  
Mohanty PS, 688  
Mohapatra SS, 383, 543, 559  
Mohr H, 222, 224, 228, 230, 371, 578  
Mok MC, 522, 525  
Mol CD, 86  
Mol JNM, 27-29, 251, 264  
Molina A, 629, 637, 642, 643  
Molitor EK, 314  
Mollenhauer HH, 519  
Moncollin V, 93  
Monod J, 597  
Monroy AF, 168, 169, 192, 560  
Monsinger E, 287  
Montaldi ER, 522, 524  
Montero LM, 35  
Montgomery DL, 601  
Monties B, 311, 451, 452  
Montillet J-L, 137, 146  
Montoya AL, 88  
Montoya G, 688  
Montrose MH, 160  
Moody SF, 450  
Moomaw C, 578  
Moon BY, 550, 555, 556  
Moore BW, 50, 51, 53, 55, 56, 60, 65  
Moore GR, 493  
Moore I, 328, 465  
Moore RE, 134, 138, 141  
Moorhead GGB, 116, 192, 196-99, 201-3, 206, 207  
Moose SP, 333, 420, 423  
Morand L, 488, 489, 493  
Morby AP, 574, 576  
Morch MD, 630, 636  
Morcos P, 107  
Morden CW, 690  
Mordhorst G, 357, 368  
Moreau F, 628, 629  
Moreau P, 406, 416, 628, 647  
Moreland DE, 140  
Morelli G, 233  
Moreno M, 643  
Moreno S, 107  
Morgan A, 53-55, 57, 62, 65, 68  
Morgan D, 454  
Morgan L, 163  
Morgan MM, 468  
Morgan PA, 356  
Morgan PW, 219, 232, 519, 524  
Morgenstern R, 131  
Mori H, 136, 138, 139, 547  
Mori S, 258  
Mori T, 109, 118  
Moribe T, 526  
Mori K, 53  
Morikawa H, 459  
Morishige DT, 686, 693, 695  
Moriyama Y, 161, 162  
Morozumi S, 255, 260  
Morré DJ, 519  
Morris A, 559  
Morris CF, 386  
Morris DA, 518, 524  
Morris P-C, 106, 112, 113, 380, 394  
Morrison D, 50, 58, 59  
Morrison TA, 465  
Morrissey PJ, 161, 162  
Mörschel E, 697, 698  
Morse A, 146  
Morvan H, 515  
Moser CS, 492  
Moses MS, 383, 386, 645  
Moss DA, 500, 501  
Motto M, 333, 420, 423, 424  
Mount DW, 81, 89, 93  
Moureaux T, 514, 524, 586  
Moya I, 662, 677  
Moya-León MA, 249, 255, 256  
Moyano E, 315  
Moyer M, 313  
Moyle J, 612  
Mozer TJ, 134, 138, 141  
Muarata M, 488  
Muchhal US, 697-99  
Mudgett MB, 381, 384, 385  
Mudler MM, 314  
Mueckler M, 606  
Muelier E, 29  
Mueller SC, 465  
Mueller-Harvey I, 451  
Muench DG, 331, 335  
Muir RM, 143  
Muir SR, 177  
Mujer CV, 201, 207  
Mukerji I, 705  
Muldbjerg M, 635, 636  
MulKidjanian AY, 496, 502  
Müller AJ, 220, 229, 232  
Müller E, 409, 425  
Müller-Hill B, 598  
Müller-Röber BT, 442, 513, 514, 516, 517, 522, 526  
Müller-Uri F, 637, 638, 640  
Mullett JE, 260, 381, 382, 513, 517, 524, 525  
Mulley JC, 41  
Mulligan JA, 462  
Mullineaux CW, 657, 662, 670  
Mullins C, 548  
Mumby MC, 102, 103, 109  
Münck E, 548  
Mundy J, 379, 386, 390-92, 468, 559, 629, 631, 632, 636-38, 640, 641  
Mur LA, 27, 29  
Mur LR, 689, 690  
Muranaka T, 526  
MURATA N, 541-68; 55, 542-59  
Murata T, 278  
Murchie E, 440  
Murelli C, 388, 408, 409  
Murer H, 160  
Murlet IC, 219  
Murielle J, 515  
Murofushi N, 232  
Murphy DJ, 410, 548  
Murphy TM, 86  
Murr DP, 265  
Murray AJS, 571-73, 575, 578, 580  
Murray JR, 513, 520  
Musgrave ME, 525  
Muslin AJ, 54, 55, 57, 59  
Mustardy L, 186, 191, 200  
Muszynska G, 109, 111, 116  
Mutchler MA, 359  
Muthukrishnan S, 512  
Muto S, 174, 176, 177  
Mutschler MA, 259  
Mutton L, 542  
Myllylä R, 249, 258, 262  
Myton KE, 452  
  
**N**  
Nadeau JA, 260  
Nadler-Hassar T, 314  
Nagahama K, 257, 258  
Nagano M, 193, 196, 198  
Nagao M, 105  
Nagao RT, 135, 138, 147, 149, 333

## 736 AUTHOR INDEX

- Nagata H, 51, 53  
 Nagata M, 302  
 Nagata T, 117, 119, 134, 136, 138, 139, 143, 147, 149  
 Nagatani A, 218-21, 224-26, 232  
 Nagato Y, 304  
 Nagi MN, 416  
 Nagpal P, 217, 220, 225, 229, 233  
 Nagy F, 217, 219  
 Naider F, 599, 602  
 Nair B, 107  
 Nair BM, 469  
 Nair H, 260  
 Nair PM, 200  
 Nairm AC, 102, 103, 108, 111, 173  
 Nair RS, 81, 82  
 Naito S, 513  
 Nakagawa M, 416  
 Nakagawa S, 513, 517, 522  
 Nakagawa T, 464  
 Nakamura K, 117, 118, 329, 342, 343, 513, 515, 517, 522, 525-27  
 Nakamura M, 469  
 Nakamura T, 278, 281, 285, 287, 381, 382, 388  
 Nakamura Y, 164, 168  
 Nakamura-Kito K, 513, 515  
 Nakane R, 450, 451  
 Nakanishi H, 258, 264  
 Nalbantoglu B, 578  
 Nam H-G, 134, 138, 146  
 Nanba O, 557  
 Nancarrow J, 41  
 Nanda A, 160, 163, 164  
 Nanmori T, 110, 117, 118  
 Napier NA, 331  
 Napier RM, 331  
 Napiwotzki A, 692  
 Napoli C, 27, 29  
 Narasimhan M, 54, 60, 62, 66, 67  
 Narasimhan ML, 165  
 Nash J, 136, 139, 142  
 Nasrallah JB, 105, 106, 117, 119  
 Nasrallah ME, 117, 119  
 Navari-Izzo F, 385  
 Naveh-Manly T, 78  
 Nebert DW, 246  
 Nечushitai R, 687, 689  
 Nef-Campa C, 578  
 Neff MM, 224, 233  
 Negm FB, 197, 206  
 Negrak V, 420, 421, 424  
 Neher E, 172, 173  
 Neill S, 383, 384  
 Neimans S, 660, 670  
 Neish AC, 452  
 Nellen W, 38  
 Nelson CJ, 465  
 Nelson DE, 165, 382, 388, 390, 392, 395  
 Nelson H, 161, 162  
 Nelson MJ, 246, 262  
 Nelson N, 161, 162, 480, 601  
 Nelson OE, 314, 365, 517  
 Nelson T, 288, 303, 355  
 Nemhauser JL, 264  
 Nemson JA, 693  
 Neori A, 698  
 Neuffer MG, 79  
 Neuhaus E, 388, 605  
 Neuhaus G, 223  
 Neuhaus HE, 439  
 Neuhaus J-M, 27-29, 342, 343  
 Neuheuser F, 25, 30  
 Neukom H, 451  
 Neumann D, 342, 385  
 Neumann GM, 629, 635  
 Neven L, 543, 559  
 Nevers P, 89  
 Nevins DJ, 448, 450, 451, 455, 458, 463, 468  
 Newman MJ, 598  
 Newman TC, 31, 38, 286, 425, 637, 645, 646  
 Ng K, 311, 447, 451, 465  
 Ng KF, 465-67  
 Nguyen H, 578  
 Nguyen VQ, 542  
 Ni W, 314  
 Nicaud JM, 645  
 Nicchitta CV, 333  
 Nichols J, 256  
 Nicholson DW, 318  
 Nicholson RL, 151  
 Nicholson WV, 704  
 Nick H, 26  
 Nick P, 223, 228, 231, 232  
 Nickell CD, 358  
 Niece RL, 574  
 Niedenhof I, 25, 26, 30, 37, 39, 42  
 Nield J, 676, 698, 704, 705  
 Nielsen PJ, 53, 55, 65, 68  
 Nielsen PS, 419, 630, 637, 638, 640, 641  
 Nielsen SM, 609  
 Nielsen TH, 197, 199, 200  
 Nielson-Jones W, 352  
 Niemi KJ, 543  
 Niitsu Y, 130  
 Nikaido O, 83, 84, 88  
 Nikawa J, 601  
 Nikawa JL, 599, 600  
 Nikolaev V, 265  
 Nimmo GA, 275, 281, 283, 285  
 Nimmo HG, 110, 117, 119, 275, 281, 283, 285  
 Ninnemann O, 596, 599-604  
 Niogret MF, 390  
 Nishida E, 54, 57  
 NISHIDA I, 541-68; 542, 544-49, 552, 554, 558, 628, 630  
 Nishida K, 176, 178  
 Nishimura M, 178, 342, 544, 547, 548, 558, 600, 630, 631, 637, 641, 642  
 Nishino T, 276, 278  
 Nishitani K, 448  
 Nishiuchi T, 547, 548  
 Nishiyama Y, 553  
 Nishizawa K, 610  
 Nishizawa N-K, 258, 264  
 Nitschke K, 105-8  
 Nitschke N, 689  
 Nitti G, 333, 527  
 Niu X-D, 115  
 Niwa Y, 136, 139  
 Niyogi KK, 79  
 Noce P, 277  
 Nocera DG, 492  
 Noctor G, 662, 664, 665, 667, 669, 671  
 Noguchi M, 263  
 Noguchi T, 357  
 Nogueira TIV, 39  
 Nolte KD, 510, 512-14, 516, 517, 524  
 Nolting H-F, 262  
 Noma M, 263  
 Nomoto K, 258  
 Nomura M, 396  
 Nonami H, 384  
 Nordoy HE, 425  
 Nordin K, 383, 543, 559  
 Nordling M, 490  
 Normanly J, 144  
 Norris BJ, 698, 701  
 Norris VA, 488  
 Northcote DH, 300, 305, 309, 310, 316, 318, 467  
 Nösberger J, 524  
 Nover L, 385  
 Nozawa Y, 558  
 Ntambi JM, 546  
 Nuccio ML, 547  
 Nuffer MG, 92  
 Nugent JHA, 687  
 Numberger T, 118  
 Nurse P, 107  
 Nussberger S, 602, 691, 703, 704  
 Nyberg B, 76

## O

- Oaks A, 573, 577, 580, 581, 583, 584, 586  
 Oberdorfer U, 228  
 O'Brian GR, 333  
 O'Brien TP, 316, 344  
 O'Connell EL, 277  
 O'Connell KM, 134, 138, 140, 141  
 O'Connor TR, 86  
 Odani S, 634  
 Odellhög B, 259  
 O'Donnell M, 91  
 Oecking C, 54, 62  
 Oeda K, 392  
 Oelmüller R, 230, 578  
 Oelze-Karow H, 224, 225  
 Oettmeier W, 480  
 Offler CE, 527

- Ogawa M, 335, 574  
 Ogawa N, 282  
 Ogawa T, 257, 258  
 Ogren E, 661  
 Ogren WL, 79, 571, 578  
 Ohad I, 480, 701  
 O'Hara PJ, 88  
 Ohashi H, 452  
 Ohata T, 258, 264  
 O'Herne-Roberts EG, 219, 225  
 Ohkura H, 104, 105  
 Ohl S, 230  
 Ohlrogge J, 415  
 Ohlrogge JB, 409, 414  
 Ohme-Takagi MO, 31, 38  
 Ohmiya A, 135, 139, 144, 148, 149  
 Ohmori M, 546, 547  
 Ohnishi T, 498  
 Ohsima T, 513  
 Ohta E, 164, 168  
 Ohta H, 260  
 Ohtani T, 545  
 Ohto C, 381, 394, 560  
 Ohto M, 117, 118, 513, 515, 525, 526  
 Ohto MA, 515, 526  
 Ohtsu Y, 357  
 Ohtsuka T, 59  
 Oikawa A, 83, 90  
 Oji Y, 110, 117, 118  
 Ojima K, 574  
 Okabe S, 255  
 Okada K, 221, 227, 228, 231  
 Okagaki RJ, 79  
 Okamoto K, 38  
 O'Kane DJ, 336  
 Okazaki K, 629  
 Okazawa K, 464  
 OKITA TW, 327-50; 331, 332, 334, 335, 342, 344  
 Okuley J, 547, 548  
 Okumura N, 258, 264  
 Okumura S, 282, 286, 289  
 Okuno S, 281, 282, 287  
 Okuyama T, 51, 53, 55-57, 65  
 Olander EH, 606  
 O'Laughlin JT, 275, 276, 278  
 Olausson T, 490  
 O'LEARY MH, 273-97; 193, 196, 197, 200, 201, 205, 206, 273, 275-78, 287  
 Olive J, 482, 501  
 OLIVEIRA IC, 569-93  
 Oliver CN, 250  
 Oliver E, 446  
 Oliver JE, 574-76  
 Oliver MJ, 379, 384  
 Olmstead RG, 454  
 Olsen FL, 637, 638, 640  
 Olsen LC, 90  
 Olsen OA, 419, 630, 637, 638, 640, 641  
 Olsen PL, 390, 391  
 Olson AJ, 488  
 Olson DC, 256  
 Olson PD, 313  
 Olumi AF, 78  
 O'Malley DM, 310, 312, 313, 370  
 Omata S, 54, 60  
 Omata T, 287  
 O'Neill M, 106, 109, 117  
 O'Neill SD, 260  
 Onodera O, 41  
 Onuchic JN, 492, 493  
 Ooms JJJ, 502  
 Oostra BA, 41  
 Opekarova M, 596, 603, 616  
 Oquist G, 660-62, 666, 670, 672, 675, 676, 701  
 Or E, 335  
 Orjan H, 490  
 Orlando V, 35  
 Orlofsky LE, 131, 139, 141  
 Orning L, 130  
 Oropeza A, 513  
 Orozco BM, 79  
 Orr J, 314  
 Orr W, 383, 543, 559  
 Ort DR, 543, 661  
 Ort O, 249, 259  
 Ortiz DF, 150  
 Osafune T, 630, 631, 637, 641, 642  
 Osborne DJ, 77, 79, 258, 263  
 Oshima Y, 600  
 Osman M, 90  
 Osmond CB, 274, 280, 281, 661  
 Ostergaard J, 630, 631  
 Ostermeier C, 479, 618  
 Ostrem JA, 381, 382  
 Osuna L, 280, 281  
 Ota IM, 102  
 Otake M, 76  
 Ottander C, 672, 676  
 Ottaviano E, 408  
 Ottoline Leyser HM, 25  
 Otwinowski Z, 262, 263  
 Ouellete BFF, 161  
 Ou-Lee T-M, 82  
 Oursel A, 628  
 Outlaw WH Jr, 274, 275, 280, 284, 393  
 Overath P, 598  
 Overbeek JHM, 169  
 Ow DW, 150  
 Owen TP Jr, 311  
 Owen WJ, 140  
 Owens TG, 667  
 Oxborough K, 661, 662  
 Özcan S, 599  
 Ozeki Y, 630  
 Ozols J, 546  
 Padgett HS, 337  
 Pagès M, 379, 383, 391  
 Paillotin G, 657  
 Pajuelo P, 578  
 Palade GE, 330  
 Palenik B, 690  
 Palevitz BA, 334, 336  
 Palladino F, 34  
 Pallas DC, 54, 57, 59  
 Palme K, 105, 134, 138, 143, 144, 146  
 Palmer G, 501  
 Palmer JD, 90  
 Pålsson LO, 691, 692, 705  
 Paltauf F, 630, 645  
 Palva ET, 331, 333, 383, 386, 543, 559  
 Pammi S, 632, 637  
 Pan Y-CE, 161, 162  
 Panayotova-Heiermann M, 618  
 Pandit NN, 39  
 Paneth P, 277  
 Pang Q, 83, 88, 90  
 Panizza M, 501  
 PANTOJA O, 159-84; 172, 176, 178  
 Papiz MZ, 695, 696  
 Parcy F, 379, 380, 390, 393, 397  
 Pardo JM, 381, 384, 386  
 Parent L, 611-13  
 Paris N, 342, 343  
 Park KY, 260  
 Park WD, 513, 514, 517, 525, 527, 530  
 Park YD, 25, 30  
 Park YI, 659, 675, 678  
 Parker JE, 118  
 Parker K, 227  
 Parker ML, 334, 344  
 Parker MW, 219, 484  
 Parks BM, 217, 218, 220, 221, 225, 228, 525, 585  
 Parmentier P, 469  
 Parmentier Y, 512, 514  
 Paro R, 34, 35  
 Parry DW, 454  
 Parry MA, 570  
 Parry RV, 161, 162  
 Parsons S, 109  
 Partensky F, 689, 690, 698  
 Pascal AA, 657, 662, 664-67, 670, 671  
 Passaquet C, 698, 700  
 Passas HJ, 420, 423  
 Paszkowski J, 25, 89  
 Paszkowski U, 313  
 Patarnello T, 479, 480  
 Pate JS, 582  
 Patel Y, 52-56, 58, 61, 65, 68  
 Pathak RK, 335  
 Pathirana SM, 287, 582  
 Patrick JW, 527  
 Patterson BD, 542  
 Patterson GI, 26, 27  
 Patton D, 586  
 Patton WF, 135, 138

# P

## 738 AUTHOR INDEX

- Pattus F, 484  
 Paul MJ, 396, 510, 514, 516,  
 517, 519, 522, 525, 526, 530  
 Paulin A, 147  
 Paulin L, 632, 637, 638, 643  
 Paull RE, 542  
 Paulsen H, 656, 678, 686, 687,  
 693, 695, 704  
 Páy A, 106, 108, 109, 116  
 Paz N, 186, 191, 200  
 Pézolet M, 628, 633  
 Pearce RS, 383, 543, 559, 637,  
 644  
 Pearce SR, 596  
 Percy RW, 550, 553  
 Pearl L, 86  
 Pearson J, 107  
 Pease EA, 217  
 Pebay-Peyroula E, 633, 634  
 Pech J-C, 249, 255, 256  
 Peck SC, 256, 260  
 Pedrazzini E, 333  
 Peeters AJM, 248, 252, 260,  
 264  
 Peleman J, 312, 384  
 Pelése-Siebenbourg F, 637, 638  
 Pelham HRB, 328, 331  
 Peliska JA, 275, 276  
 Peltomäki P, 36, 41  
 Pelzer Reith B, 187, 190  
 Pemberton GH, 512, 518, 524  
 Pemble SE, 131-33  
 Pen J, 54, 55, 62  
 Peña-Cortes H, 513, 516, 517  
 Peñalva MA, 259  
 Peñarrubia L, 259  
 Pendergast AM, 54, 55, 58, 59  
 Peng CI, 371  
 Peng HP, 513  
 Peng J, 81, 220, 225, 230  
 Peng SS-Y, 512, 515, 584  
 Peng Y-L, 260  
 Penttilä M, 599  
 Peoples MB, 571, 572, 582  
 Pepper A, 217, 220, 233, 234  
 Perata P, 192  
 Pereira A, 420, 424  
 Pereira S, 574-76  
 Perera I, 161, 162  
 Perez VJ, 50, 51, 53, 55, 65  
 Pérez-Callejón E, 106, 109, 114  
 Pérez-Grau L, 547, 548, 585  
 Perez-Prat E, 165  
 Perl-Treves R, 381, 385  
 Perras MR, 397  
 Perrin DM, 608, 609  
 Perry JR, 599, 602  
 Persson B, 259  
 Peter GF, 665, 670, 686,  
 691-93, 695, 704  
 Peter LJ, 16  
 Peterkofsky B, 257  
 Peterman TK, 260, 264, 574,  
 576, 585  
 Peters PJ, 420  
 Petersen OH, 611-13  
 Peterson CA, 301, 519  
 Peterson PA, 251  
 Peterson T, 315  
 Petit MC, 634  
 Petitjean A, 524  
 Petitprez M, 249, 256  
 Peto CA, 219, 220, 222, 229,  
 232, 233  
 Petrusa E, 247  
 Petussa C, 67  
 Pettigrew GW, 493  
 Pfeffer SR, 328  
 Pfündel E, 665, 666  
 Pharis RP, 302  
 Pharr DM, 433, 512, 516, 525  
 Phelps A, 601  
 Philippe H, 279, 281, 285, 289  
 Phillip D, 662, 665-67, 669,  
 671  
 Phillips AL, 248, 252, 256,  
 260, 383, 384  
 Phillips RL, 42, 307  
 Phinney BO, 8, 263  
 Fiałkowski D, 379, 383, 386,  
 559  
 Pichersky E, 391, 686, 691-93,  
 696, 701, 702, 704  
 Pickett CB, 128, 130, 131, 145,  
 147  
 Picorel R, 688  
 Picot D, 484  
 Pictou S, 256, 259, 260  
 Piekos B, 220, 229  
 Pieretti M, 41  
 Pierik AJ, 491, 493  
 Pierre J-N, 275, 281, 283  
 Pierre Y, 481, 482, 501  
 Pietrzak M, 342, 343  
 Pihlajaniemi T, 258  
 Pilate G, 312, 313  
 Pillonel C, 314, 452  
 Pillus L, 34  
 Pilon-Smits EAH, 396  
 Pineau B, 665, 688, 692  
 Ping Z, 174, 176, 177  
 Pinna LA, 109, 111, 116  
 Pinot F, 381  
 Pintor-Toro JA, 315, 381, 383,  
 384, 386, 637, 638  
 Pinzino C, 385  
 Piosik PA, 53, 66  
 Piotrowski R, 26  
 Piotrowski R, 389  
 Pirck M, 106, 108, 109  
 Piro G, 309  
 Pirodda V, 26, 40  
 Pirrung MC, 255, 256  
 Pittalwa TS, 81, 93  
 Pittman RN, 407  
 Pjon C-J, 216  
 Pla M, 390  
 Plai AL, 383, 386, 645  
 PLAXTON WC, 185-214;  
 116, 186, 190, 192, 194,  
 196-200, 202-7  
 Plewa MJ, 77  
 Plooy I, 410, 425  
 Plutner H, 328  
 Podestá FE, 194, 196-202,  
 204-7, 277, 287  
 Poethig RS, 352, 355, 356,  
 358, 359, 362-64, 367, 420,  
 423  
 Poethig S, 363  
 Poetsch W, 286, 288, 289, 291  
 Poff KL, 218, 220, 221, 227,  
 228, 230  
 Pogna N, 409  
 Pogson BJ, 260  
 Pohlheim F, 356  
 Poiteau A, 352  
 Poli G, 145  
 Poljakoff-Mayber A, 287  
 Pollard HB, 635  
 Pollard M, 409, 412  
 Pollock CJ, 510, 516, 520  
 Pollock JA, 335  
 Polya GM, 109, 629, 635  
 Pomeranz Y, 334, 344  
 Pomeroy MK, 190, 196  
 Pomonis JG, 411  
 Poneleit LS, 255  
 PONOMAREV M, 477-508;  
 483, 490, 491, 494  
 Poole D, 220, 233, 234  
 Poole DS, 225  
 Poole RJ, 161, 165-70, 192,  
 543, 559, 596  
 Popineau Y, 631  
 Popot J-L, 481-83, 501  
 Porter G, 658, 672  
 Porter S, 312  
 Posas F, 106, 109  
 Post AF, 689, 690  
 POST-BEITENMILLER D,  
 405-30; 409, 410, 412,  
 414-16, 421, 425  
 Poste LM, 469  
 Postlethwait SN, 365  
 Postma JPM, 484  
 Potgieter GP, 186, 190, 191,  
 196, 205  
 Potrykus I, 25, 89  
 Potter PM, 85  
 Potter R, 419, 630, 637, 638,  
 640, 641  
 Potter S, 134, 138, 141  
 Potts JRM, 452  
 Poulton JE, 570  
 Powell ALT, 25  
 Powers DA, 700  
 Powles SB, 555  
 Pozzi N, 409  
 Pradel K, 301  
 Pradet A, 192, 512, 515, 521,  
 584  
 Prakash N, 201, 202  
 Prandi R, 135, 138  
 Prasad GL, 53  
 Prasad RBN, 409  
 Pratt KA, 331  
 Pratt LH, 219, 220, 222, 229,  
 232  
 Pregitzer KS, 520  
 Preiss J, 206

Preiss S, 692  
 Prescott A, 250, 251  
 PRESCOTT AG, 245-71; 246, 247, 258  
 Prescott AR, 114  
 Preston GM, 179  
 Preuss D, 408, 421, 424  
 Prezelin BB, 698  
 Pri-Hadash A, 370  
 Priem B, 515  
 Priming M, 25, 26  
 Prince SM, 695, 696  
 Pringle JR, 108  
 Prins HBA, 169, 172  
 Prioul JL, 283  
 Pritchard J, 464  
 Pritchard M, 41  
 Pritzkow W, 687, 689  
 Prive GG, 607, 608  
 Prochaska HJ, 131, 132  
 Probsting WM, 29, 31  
 Prols F, 25  
 Pronk JT, 616  
 Prosser IM, 600  
 Proteau D, 162  
 Protic-Sabljić M, 82  
 Pryke JA, 524  
 Pryor AJ, 581  
 Pryor KN, 37  
 Prytulla S, 695  
 Ptak M, 633, 634  
 Puchta H, 89, 92  
 Puckett JM, 87  
 Puel F, 698  
 Pueppke SG, 344  
 Pugh JE, 33  
 Pugin A, 118  
 Puhlmann J, 450  
 Puigdomenech P, 314, 332, 334, 383, 453, 469, 637, 638  
 Pujol G, 106, 109, 114  
 Pumfrey JE, 356  
 Pundsnas AS, 217  
 Purvis AC, 521  
 Pyee J, 419, 630, 632, 637, 641-43, 647  
 Pylkkanen L, 36, 41  
 Pysznik AM, 703

## Q

Qin L, 488-90  
 Qu R, 631  
 Quaadvlieg N, 233  
 Quail PH, 217, 219, 220, 222, 225, 226, 229, 232-34, 570, 585  
 Quait FE, 82, 88  
 Quarrie SA, 380  
 Quatrano RS, 386, 387, 390, 391  
 Quesada A, 600  
 Quick P, 388, 439, 440  
 Quick PW, 510  
 Quick WP, 434, 435, 437, 514  
 Quideau S, 448, 451, 452  
 Quigley AS, 383  
 Quinet-Szély M, 313, 698, 700  
 Quint A, 136, 139, 146, 147  
 Quintin F, 635

## R

Raba R, 82  
 Radin JW, 517  
 Radke SE, 548  
 Radman M, 42  
 Rådmark O, 246, 263, 264  
 Radosevich SR, 141  
 Radzio R, 130, 134, 138, 146, 147  
 Raghavendra AS, 198, 275, 277, 281, 287  
 Rai AK, 396  
 Rai R, 601  
 Raibekas AA, 218, 220, 228  
 Raikheil NV, 328, 329, 336, 337, 342, 343  
 Raina R, 37  
 Raison JK, 542, 543, 550, 553  
 Rajagopal I, 90  
 Rajagopalan AV, 198, 275, 277, 281, 287  
 Rajagopalan M, 91  
 Ralph J, 448, 451, 452  
 Ralston E, 410, 425  
 Ramaninder B, 38  
 Ramezani-Rad M, 596  
 Ramin VC, 38  
 Rana MA, 306  
 Randall DD, 102, 110, 115  
 Randall SK, 161  
 Randle PJ, 115  
 Ranjeva R, 110, 176  
 Rank B, 662, 670  
 Rashka K, 334  
 Rashotte A, 420, 424  
 Rasi-Caldogno F, 176  
 Rasmussen HH, 55, 65  
 Rassart E, 543, 559  
 Ratajczak L, 581  
 Ratajczak R, 164, 178  
 Ratajczak W, 581  
 Rausch T, 596  
 Rauser WE, 132, 146  
 Raven PH, 696  
 Ray J, 27, 28, 31  
 Raymond CK, 339  
 Raymond P, 512, 515, 521, 584  
 Raynal M, 379, 380, 393, 543, 559  
 Raynal P, 635  
 Raz R, 310, 453  
 Raz V, 117, 118  
 Razin A, 78  
 Rea PA, 161, 162, 165-67, 169, 170, 596  
 Read ND, 113, 176  
 Rebeck GW, 79  
 Rebeille F, 521, 558  
 Rebman G, 130, 134, 138, 145, 146  
 Rechinger KB, 331, 334  
 Record E, 629  
 Record RD, 338  
 Reddanna P, 265  
 Reddy AS, 547  
 Reddy CC, 265  
 Reddy GM, 250, 251  
 Reddy SAG, 109  
 Redfield C, 488  
 Redgwell RJ, 455, 458  
 Redinbaugh MG, 110, 111, 117, 118, 579  
 Redinbo MR, 488, 490  
 Reed AJ, 524  
 Reed JR, 411  
 Reed JW, 217, 218, 220, 224, 225, 585  
 Reed LJ, 115  
 Reed RR, 397  
 Reenan RA, 90  
 Rees DC, 263, 660, 662, 664, 665, 667, 669, 671, 678  
 Rees SB, 629, 643  
 Refeno R, 110  
 Regenass M, 106, 107, 118  
 Reichenbach C, 130, 142  
 Reid DM, 255, 257  
 Reid JB, 219, 231, 232, 693  
 Reid JSG, 458  
 Reifenberger E, 599, 602  
 Reigel A, 513, 520  
 Reilly JJ, 87  
 Reimann A, 480  
 Reimholz R, 433, 439, 441, 442  
 Reinard T, 464  
 Reinecke D, 220, 231  
 Reinemer P, 131, 144  
 Reines D, 82  
 Reinhardt D, 249, 256  
 Reinicke J, 37  
 Reinke R, 335  
 Reinold S, 314  
 Reist R, 146  
 Reiter WD, 467  
 Reith M, 699  
 Reitz RC, 411  
 Reizer A, 164, 178  
 Reizer J, 164, 178, 179, 341  
 Relle M, 281, 287, 291  
 Rémy R, 281, 698  
 Ren Z, 218, 221, 227, 228  
 Renelt A, 118  
 Renfranz PJ, 335  
 Renganathan M, 663  
 Renger G, 662, 670, 676, 692  
 Renneberg H, 132, 145  
 Rentsch D, 178, 599, 602, 603  
 Renwick KF, 391, 463, 464  
 Renz A, 204  
 Requier MC, 524  
 Reuling G, 112  
 Reuter G, 33  
 Reuther GW, 54, 55, 58, 59  
 Reuveni M, 165  
 Reviron M-P, 383, 395  
 Reynolds PHS, 584  
 Rhiel E, 697, 698

## 740 AUTHOR INDEX

- Rhodes D, 311, 581  
 Rhodes DI, 447, 451, 465  
 Ribak O, 27  
 Riballo E, 617  
 Ricard B, 192  
 Ricci P, 118  
 Rice JD, 521  
 Rich PJ, 419, 420, 581  
 Rich PR, 495, 499-503  
 Richards JH, 492  
 Richards NGJ, 583, 584  
 Richardson M, 526, 586, 631  
 Richter J, 164, 331  
 Rickenberg HV, 597  
 Rickers J, 419, 630, 633  
 Rideout WM, 78  
 Ridge RW, 576  
 Riedel D, 469  
 Riedel L, 30  
 Riesmeier JW, 596, 599-601, 603  
 Rife JE, 277  
 Rigau J, 314, 383, 469  
 Rigoni F, 686  
 Rivier DH, 34  
 Rivoal J, 192  
 Roach PL, 247, 262, 263  
 Robanus-Maandag E, 35  
 Robard AW, 368  
 Robbins MP, 249  
 Robbins TP, 26, 89  
 Robert B, 662, 670  
 Robert LS, 543, 559  
 Roberts AW, 307, 308  
 Roberts BT, 162  
 Roberts DM, 307, 527  
 Roberts GP, 572  
 Roberts JKM, 192, 379, 386, 550, 553  
 Roberts K, 367, 446, 458, 459, 462, 466  
 Roberts LW, 300-2, 304, 316  
 Roberts MR, 637, 639, 640, 643  
 Roberts MW, 331, 332, 334, 335  
 Roberts TM, 59  
 Roberts VA, 488  
 Robertson DE, 218, 220, 228, 497  
 Robertson DL, 690  
 Robertson JG, 582, 584  
 Robertson M, 386, 390  
 Robins P, 85  
 Robinson C, 176, 486  
 Robinson DG, 160, 329, 336, 339, 340, 342  
 Robinson DL, 274, 285, 287, 577, 582  
 Robinson DS, 246, 247  
 Robinson K, 52, 54, 55, 61, 65, 68  
 Robinson SA, 570, 573, 577, 579, 580, 583, 678  
 Robinson SW, 637, 639, 640, 643  
 Robiquet PJ, 583  
 Rochemaix JD, 481, 697, 698  
 Rocha-Sosa M, 513, 517  
 Roche D, 574, 576  
 Rocher JP, 283  
 Rochford RJ, 484, 493  
 Rocholl M, 217  
 Rock CO, 544  
 Rockel B, 164  
 Rodgers MW, 309, 313  
 Rodriguez C, 601  
 Rodriguez RL, 510, 512, 514-16, 518, 521, 524, 688  
 Roeckel D, 110  
 Roeske CA, 115  
 ROGERS JC, 327-50; 38, 336, 337, 341-43, 390, 391, 629, 631, 632, 636, 637, 640, 641  
 Rogers KR, 145  
 Rogers SO, 359  
 Rögner M, 483, 704  
 Rohde W, 453  
 Rohwer F, 135, 138, 146  
 Roitsch T, 513, 514, 518, 520, 524, 527, 603  
 Rolando C, 451, 452  
 Roliff E, 218, 224, 225, 230  
 Roman G, 224  
 Romano CP, 301  
 Romano N, 40  
 Romanowska E, 480, 482  
 Rombaldi C, 249, 255, 256  
 Romeo JT, 570  
 Romero JM, 366  
 Roobol-Boza M, 691, 692  
 Rood SB, 219, 232  
 Rook F, 233  
 Rooney MF, 54, 55  
 Rooney WL, 358, 370  
 Roper J, 582  
 Roper S, 368  
 Röper-Schwarz U, 510, 514, 516, 517, 519, 525, 526, 530  
 Rosamond J, 83, 84, 88  
 Rosch K, 453  
 Rose IA, 277  
 Rose JK, 330  
 Rose MD, 333, 526  
 Roseboom PH, 50, 52, 57, 66, 68  
 Rosenberg CA, 637, 638  
 Rosenberg N, 332  
 Rosenfeld GC, 54  
 Rosenstein BS, 88  
 Ross C, 219, 231  
 Ross DW, 583  
 Ross HA, 521  
 Ross JJ, 232  
 Rossignol JL, 39  
 Rossini A, 409  
 Rossini L, 141  
 Rossiter JT, 249, 259  
 Rostas J, 65  
 Roth D, 54, 55, 57, 62, 65, 68  
 Roth I, 370, 639  
 Roth K-S, 440  
 Roth SY, 34  
 Rothan C, 256  
 Rothenberg M, 224  
 Rothman JE, 328  
 Rothstein SJ, 26, 313  
 Rotter M, 598  
 Roubelakis-Angelakis KA, 579  
 Rouge P, 256, 260  
 Roughan PG, 542, 544, 545  
 Rougier M, 450  
 Rousseau B, 698, 700  
 Roux SJ, 116, 465  
 Rowan KS, 204  
 Roy R, 93  
 Roza L, 85  
 Ruan YL, 527  
 RUBAN AV, 655-84; 656, 657, 659, 661-67, 669-72, 674-76  
 Ruberti I, 233  
 Rubin R, 329, 331, 332, 334, 344  
 Rubinstein AL, 453  
 Rubinstein B, 257  
 Rubio F, 604  
 Rudall PJ, 451, 455  
 Ruediger R, 109, 110  
 Ruel K, 458  
 Rüetschi U, 259  
 Ruffini J, 88  
 Ruffle SV, 687  
 Ruggieri R, 54, 57, 59  
 Ruhnau-Brich B, 248, 250  
 Ruiz RAT, 303, 304  
 Ruiz-Avila L, 332, 334, 419, 453, 630, 639, 641  
 Rumpho ME, 196, 198, 201, 207  
 Rundle SJ, 105, 106, 109, 117, 119  
 Rüneberg-Roos P, 337  
 Runtz I, 149  
 Ruscitti T, 150  
 Rushmore TH, 131, 147  
 Rusnak F, 113, 117  
 Rusnes DG, 129, 131, 139-41, 150, 151  
 Russell AW, 678  
 Russell NJ, 558  
 Russell SH, 391  
 Russell WR, 451  
 Russo VEA, 39  
 Ruth JE, 359  
 Rutherford AW, 689  
 Ruyters G, 200  
 Ryals J, 146  
 Ryan CA, 512, 513, 517, 525  
 Ryberg M, 687  
 Rybka J, 484  
 Rydberg B, 85  
 Ryo H, 85  
 Ryser U, 310

## S

- Saarelainen R, 574, 576  
 Sabelli PA, 526, 586  
 Sablowski R, 315

- Sablowski RWM, 315  
 Sabularse DC, 191  
 Sacher JA, 524  
 Sachot RM, 313  
 Sachs T, 300, 301  
 Sadka A, 513, 517, 524, 525  
 Saehoe-Larssen S, 386  
 SAEDLER H, 23-48; 26, 37, 42, 89, 247, 250, 260, 263  
 Saenger W, 689  
 Sáez-Vásquez J, 543, 559  
 Saganich R, 219  
 Sagishima K, 196  
 Saglio P, 192  
 Saier MH Jr, 164, 178, 510, 526, 527, 602, 605, 607, 610  
 Saigusa A, 175  
 Saito H, 111  
 Sakaguchi M, 54, 55, 61  
 Sakai M, 258  
 Sakai T, 134, 138, 149  
 Sakakibara H, 574, 578, 580, 585  
 Sakamoto A, 574  
 Sakamoto T, 546, 547, 552-54  
 Sakata M, 164, 168  
 Sakumi K, 85  
 Sakurai A, 231, 232, 254  
 Salamini F, 379, 381-84, 386, 388, 390-93, 396, 407, 412, 420, 422-24, 453, 559  
 Salanoubat M, 435, 512, 514, 516, 518  
 Salehuzzaman SNIM, 513, 517  
 Salema R, 574-76  
 Salerno G, 513  
 Salinas J, 35, 54, 55, 66, 392  
 Salmon JM, 596  
 Saloheimo A, 599  
 Salom CL, 579  
 Salpeter M, 328  
 Salt DE, 170  
 Salter AH, 687  
 Salvucci ME, 433-37, 441, 442, 515  
 Samac DA, 577  
 Samaras Y, 281  
 Sambrook J, 330  
 Samson L, 79, 85, 86  
 Samson LD, 86  
 Samuëlsson B, 130, 246, 263, 264  
 Sanada Y, 289  
 Sancar A, 83-85, 87, 218, 220, 228  
 Sanchez RA, 223  
 Sánchez-Jiménez F, 578  
 Sánchez-Martínez D, 383  
 Sanchez-Serrano J, 513, 516, 517  
 Sanderlin AS, 628  
 Sandermann H, 129, 130, 137, 139, 141, 142, 151  
 Sandermann H Jr, 265  
 Sanders D, 163, 167, 170, 172-74, 176, 177, 192, 438, 615  
 Sanders SL, 333  
 Sands RH, 263  
 Sandusky P, 692, 702  
 Sanger HL, 30  
 Sangster AG, 454  
 Sangwan RS, 186, 190, 193-96, 204  
 Sano H, 231  
 Santerre A, 86  
 Santi S, 285-87  
 Santini C, 704  
 Santucci A, 333  
 Sarafian V, 165, 166  
 Sarasin A, 78  
 Saraste M, 479  
 Sarath G, 115, 275, 280-82  
 Sarhan F, 543, 559, 560  
 Sari Gorla M, 141  
 Sass JE, 365  
 Satake T, 542  
 Satava J, 85, 86  
 Satina S, 353  
 Sato F, 196  
 Sato N, 542-44, 546, 558, 559  
 Sato S, 41  
 Sato Y, 305, 307, 309, 313, 464  
 Satoh H, 304  
 Satoh K, 557, 687, 688  
 Sauer K, 705  
 Sauer N, 310, 596, 600-3, 610-13, 615-17  
 Saunders RD, 105  
 Sauter JJ, 515  
 Sauter M, 463, 465  
 Savidge RA, 300, 313  
 Savitch LV, 675  
 Savva R, 86  
 Sawilovich WB, 135, 138  
 Sayanova O, 331  
 Sayre RT, 688, 690  
 Scalbert A, 451, 452  
 Scandalios JG, 145, 217, 390  
 Scaramuzzi C, 690  
 Scarpa O, 409  
 Scarrow RC, 262  
 Schaal S, 512, 518  
 Schabelrauch LS, 486  
 Schabtach E, 39  
 Schachtman DP, 600, 604  
 Schäfer C, 511, 512, 514, 516, 517, 520, 521  
 Schäfer E, 217, 219, 223, 225, 228, 230, 231, 512  
 Schaefer MR, 689  
 Schaeffer HJ, 288  
 Schaeffer L, 93  
 Schaffer AA, 510, 516  
 Schaffer J, 131, 144  
 Schaffer MA, 395  
 Schaffner AR, 286, 289  
 Schaffner W, 41  
 Schagger H, 481-83, 493  
 Schantz R, 697-99  
 Scharf K-D, 385  
 Schat H, 146  
 Schatz GH, 658  
 Schauer mann G, 342  
 Scheel D, 312, 315  
 Scheid OM, 25, 26  
 Schejter ED, 53  
 Schekman R, 37  
 Schekman RW, 333  
 Scheleekens GA, 630, 632, 637, 641, 647  
 Schell J, 25, 26, 31, 35, 105, 134, 138, 143, 144, 146, 358, 513  
 Schellekens GA, 419  
 Scheller HV, 704  
 Scherer DE, 547, 548  
 Scheres B, 355  
 Schiff JA, 698  
 Schilperoot RA, 25  
 Schilstra MJ, 262  
 Schimke RT, 42  
 Schindler M, 641  
 Schindler T, 310, 316, 462, 466  
 Schindler U, 60  
 Schläppi M, 37  
 Schmelzer E, 386, 600, 603  
 Schmid J, 314, 315  
 Schmid MF, 696  
 Schmid R, 513, 516, 517  
 Schmidt A, 510, 512, 599  
 Schmidt CL, 494  
 Schmidt G, 696  
 Schmidt H-L, 277, 546-48  
 Schmidt R, 520, 544, 545, 549  
 Schmidt S, 578  
 Schmitt A, 697, 698  
 Schmitt JM, 286  
 Schmitz G, 136, 139  
 Schmitz UK, 601  
 Schmulling T, 358  
 Schnabl H, 196  
 Schnable PS, 251, 420, 423  
 Schnarrenberger C, 187, 190, 526  
 Schneider JC, 545  
 Schneider K, 367, 379, 383, 384, 386, 396, 559  
 Schneider W, 510, 513, 517, 521, 530  
 Schobert C, 612, 613, 615  
 Schobert CT, 601  
 Schoentgen F, 630, 631  
 Schofield CJ, 249, 256, 260, 263  
 Schofs HME, 629, 643  
 Scholes JD, 675  
 Schonknecht G, 660, 670  
 Schopfer P, 225, 310, 313, 316, 454, 462, 463, 466  
 Schrader LE, 574  
 Schrader PAT, 63, 67  
 Schrauder M, 265  
 Schreckengost WE, 547  
 Schreiber BM, 525  
 Schreiber SL, 103, 113, 117, 118  
 Schrier SL, 628, 636  
 Schröder WP, 687, 688, 692, 693  
 Schroder P, 137, 139

## 742 AUTHOR INDEX

- Schroder WP, 676  
 Schroeder HE, 333  
 Schroeder JJ, 172, 173, 176, 177, 179, 341, 394, 595, 600, 602, 604, 610, 611  
 Schroeder MR, 342, 343  
 Schütz M, 479, 480  
 Schubert KR, 584  
 Schubert WD, 689  
 Schuch W, 27, 28, 31, 134, 138, 259, 260, 315  
 Schuller KA, 115, 198, 280, 285  
 Schulte R, 513  
 Schultz C, 571, 572, 581, 586  
 Schultz CJ, 571, 572, 581-83, 586  
 Schulz A, 249, 259, 600, 603  
 Schulz M, 196  
 Schulz W, 314, 315  
 Schulz-Lessdorf B, 171, 172, 174  
 Schulze-Lefert P, 313  
 Schumaker KS, 170, 176  
 Schuman-Jorns M, 218, 220, 228  
 Schussler JR, 524  
 Schuster JR, 510  
 Schuster SM, 583, 584  
 Schwab GWG, 613, 615  
 Schwager SJ, 259  
 Schwartz D, 26  
 Schwartz TW, 609  
 Schwartzbach SD, 699, 701  
 Schwarz JJ, 117, 118  
 Schwarz K, 454  
 Schwarz M, 597  
 Schwarz TJ, 136, 138, 139  
 Schwarzbach SD, 697-99  
 Schweig S, 662, 670  
 Schweimer A, 248, 252, 254  
 Schweisguth A, 207  
 Schweitzer G, 705  
 Schwenen L, 252, 254  
 Schwitzgubel JP, 642  
 Schyns R, 79  
 Scienza A, 251  
 Scolnick PA, 391  
 Scott DB, 582, 584  
 Scott FW, 469  
 Scott L, 88  
 Scott P, 191  
 Seagull RW, 305, 308  
 Searle G, 667  
 Searles PS, 84  
 Sears BB, 486  
 Seaston A, 598  
 Seaton GCR, 678  
 Sebald W, 601, 605  
 Sebkova V, 512, 514, 518, 522, 524  
 Sechley KA, 577  
 Secor J, 249, 259  
 Sederoff RR, 310, 312, 313, 452, 468  
 Sedgwick B, 80, 85  
 Seeberg E, 86  
 Seeley KA, 220, 225  
 Segal D, 53  
 Segal G, 333, 344  
 Segura A, 629, 643  
 Sehnke PC, 54, 56-58, 60-62, 67, 68  
 Seibert M, 687, 688, 704  
 Seifter S, 247, 257  
 Seitz SP, 246, 262  
 Sekiguchi M, 80, 85, 86  
 Selak MA, 500  
 Self R, 150  
 Selker EU, 39  
 Sellers LA, 53, 55, 57, 58, 68  
 Selvendran RR, 455, 458  
 Semeniuk P, 356  
 Senda M, 459  
 Séné CFB, 458, 459  
 Sengupta-Gopalan C, 334, 574-76  
 Sentenac H, 257, 596  
 Seppänen P, 35  
 Sepulveda FV, 596  
 Serrano R, 397, 596, 616  
 Servaites JC, 520  
 Sessa G, 233  
 Setlow P, 78  
 Seurinck J, 312, 333, 384  
 Severson RF, 204  
 Seyama Y, 544, 546  
 Seymour GB, 27, 32  
 Sgheri CLM, 385  
 Shabbeer J, 259  
 Shaffer CD, 33  
 Shah DM, 134, 138, 141, 637, 638  
 Shank BB, 333  
 Shanklin J, 226, 547, 548  
 Shannon JC, 437, 440  
 Shapiro HS, 78  
 Sharep A, 630, 645, 647  
 Sharkey TD, 440  
 Sharma HW, 91  
 Sharma YK, 137, 147  
 Sharp RE, 464, 465  
 Sharples FP, 698, 701  
 Sharrock RA, 219, 220, 225, 226  
 Shaw JR, 519  
 Shaw KL, 331, 334  
 Shaw MJ, 220, 230  
 Shedletzky E, 465  
 Sheen J, 104, 109, 117, 286, 289, 432, 510, 514, 520, 525, 526, 530, 586  
 Sheen J-Y, 586  
 Sheldrake AR, 318  
 Sheldrick KS, 52, 54, 55, 63  
 Shen D, 691, 693  
 Shen Q, 390, 392, 397  
 Shen W-J, 575, 576  
 Shenolikar S, 102, 103, 108, 109, 111, 113, 114, 117  
 Sherman LA, 689, 690  
 Sherman WB, 520  
 Sheu G, 512, 515  
 Sheu JJ, 511, 514  
 Sheu YJ, 512, 515  
 Shewmaker CK, 440  
 Shewry PR, 331, 344, 526, 586  
 Shi LX, 688  
 Shibaoka H, 231, 302, 305, 306, 310  
 Shibata D, 260, 264, 574  
 Shibuya N, 450, 451  
 Shieh WJ, 510, 522  
 Shigesada K, 286, 289  
 Shih M-C, 229, 513  
 Shilo B, 53  
 Shima H, 105  
 Shimabukuro RH, 128, 138, 140, 141  
 Shimada H, 286  
 Shimakata T, 415  
 Shimamoto K, 289, 419, 630, 637, 638, 640, 641  
 Shimizu K, 54, 57, 59  
 Shimizu T, 246  
 Shimoda E, 610  
 Shimoni Y, 331-33, 344  
 Shimosato N, 164, 168  
 Shimura Y, 221, 227, 228, 231  
 Shin DH, 633-35  
 Shine WE, 414  
 Shininger TL, 307  
 Shinkale JR, 465  
 Shinomura T, 218, 219, 221  
 Shinoura Y, 91  
 Shinozaki K, 135, 138, 381, 382-84, 386, 390, 391, 393, 394, 560  
 Shinshi H, 116, 118  
 Shiomi K, 108  
 Shiota S, 85  
 Shiraiishi H, 545  
 Shirano Y, 260  
 Shirley BW, 81, 88, 89, 231  
 Shmuel M, 465  
 Shoebridge G, 698, 700, 701  
 Shoji Y, 305, 307  
 Shono M, 289  
 Shore PA, 262  
 Shorrosh BS, 258, 527  
 Short TW, 217, 220, 225, 227, 585  
 Shotwell MA, 81, 89, 93, 330, 331  
 Showalter AM, 447, 453  
 Shreve AP, 667  
 Shropshire WJ, 219  
 Shuttleworth JE, 224  
 Shyamala V, 596  
 Si Y, 637, 642  
 Sibley E, 546  
 Siciliano MJ, 86  
 Sidik K, 86  
 Sieciechowicz KA, 584  
 Siede W, 77, 86, 89  
 Siedow JN, 246, 247, 260, 264  
 Siefert F, 265  
 Siegenthaler PA, 642  
 Siegl G, 110, 117, 118, 388, 439  
 Siffel P, 672



- Sigman DS, 608, 609  
 Signer ER, 25  
 Sigrist CIA, 637, 644  
 Sigrist M, 693  
 Sikkema KD, 275  
 Silflow CD, 308, 309, 574  
 Silva H, 146  
 Silva-Rosales L, 29, 31  
 Silverstein T, 115  
 Sim S, 220, 231  
 Sima P, 81  
 Simko I, 522  
 Simmonds D, 543, 559  
 Simmons C, 106, 110  
 Simon R, 332  
 Simoni RD, 606  
 Simorre JP, 633, 634  
 Simper H, 514  
 Simpson DJ, 331, 334, 691, 693, 704  
 Simpson GG, 67  
 Simpson J, 548  
 Simpson RB, 88  
 Singer MJ, 39  
 Singer RH, 37  
 Singer SJ, 328  
 Singh J, 383, 543, 559  
 Singh KB, 148  
 Singh M, 379  
 Singh N, 186, 190, 193, 194, 196, 204  
 Singh R, 197, 199  
 Singh Rana P, 579  
 Singhal RK, 91  
 Singhal SS, 135, 138  
 Singletary GW, 524  
 Sinha N, 365  
 Sinjorgo KMC, 331, 333  
 Sisco PH, 420, 423  
 Sistonen P, 36, 41  
 Sitia R, 330  
 Sivasankar S, 586  
 Sjolund RD, 300  
 Skaggs DP, 10  
 Skakal I, 85  
 Skinner HB, 645, 647  
 Skirvin RM, 371  
 Skourtis SS, 492  
 Skriver K, 390, 391, 559, 637, 638, 640  
 Skriver L, 558  
 Skroch J, 104  
 Slabas AR, 106, 107, 109, 543, 628  
 Slack CR, 544, 545, 558  
 Slater JD, 277  
 Slater TF, 145  
 Slayman CL, 598, 615  
 Slayman CW, 598  
 Slobodchikoff CN, 370, 371  
 Slocombe SP, 548  
 Slovin JP, 144  
 Slupphaug G, 86, 90  
 Slusarenko AJ, 260  
 Small G, 85  
 Small GD, 83  
 Small JGC, 190, 196, 197, 199  
 Smalle J, 380, 393  
 Smallwood M, 453  
 Smart MG, 344  
 Smeekens S, 233  
 Smeekens SCM, 396  
 Smerdon SJ, 67  
 Smith AG, 513, 520, 582  
 Smith BG, 455, 458  
 Smith CA, 85, 86, 88, 315, 513, 517, 530  
 Smith CG, 313  
 Smith CJS, 27, 28, 31, 462  
 Smith FW, 600, 604  
 Smith H, 217, 219, 225, 226, 232  
 Smith IK, 146  
 Smith JAC, 164, 169, 170, 178, 382  
 Smith JB, 468  
 Smith JJ, 255, 256  
 SMITH JL, 477-508; 479, 484, 486, 489, 493, 495  
 Smith KC, 77  
 Smith LD, 331  
 Smith LG, 365  
 Smith MA, 546  
 Smith P, 500  
 Smith RC, 463, 464  
 SMITH RD, 101-25; 105, 106, 113, 114, 117, 119  
 Smith RG, 193  
 Smith SM, 173  
 Smith SS, 30  
 Smith VA, 248, 254  
 Sneddon AA, 103, 108  
 Snustad DP, 308, 309, 574, 576  
 Snyder D, 698, 700  
 Sodano P, 634  
 Soderstrom M, 130  
 Soen SY, 697, 698  
 Sogaard B, 412, 420, 422  
 Soll D, 106, 110  
 Soll J, 53  
 Sols A, 206  
 Soltis DE, 454  
 Somers DE, 219, 220, 225, 226, 232  
 Somerville CR, 82, 314, 410, 417, 419, 467, 543-48, 558, 571, 578, 628-30, 632, 637-39, 641, 643, 645-47  
 Sommer H, 26, 637, 644  
 Sone Y, 463  
 Soneji Y, 67  
 Song I, 514, 522  
 Song W-C, 246, 599, 602  
 Song Y-R, 310  
 Soni SL, 522  
 Sonnewald U, 191, 192, 434, 435, 437, 441, 442, 512-17, 520, 522, 526  
 Sonti RV, 89  
 Sopanen T, 599  
 Sorensen SB, 635, 636  
 SORIANO GM, 477-508; 483, 490, 491, 494  
 Sossountzov L, 419, 630, 639, 641  
 Sotta B, 287  
 Spalding E, 217, 225  
 Spangfort MD, 666, 675, 692, 693, 701, 705  
 Spanu P, 106, 107, 118, 249  
 Sparvoli F, 251  
 Spector DL, 37  
 Spena A, 26  
 Spencer D, 333  
 Spener F, 419, 630, 633  
 Spetea C, 678  
 Spevak W, 104  
 Spierer P, 33  
 Spilatro SR, 196  
 Spiteri A, 192  
 Spivak G, 93  
 Spofford JB, 33  
 Spollen WG, 464  
 Sprang SR, 332  
 Spray CR, 263  
 Springer B, 518  
 Spruit CJP, 218, 219, 224, 225, 230  
 Sprunck S, 464  
 Spurr N, 85  
 Srivastava HS, 579  
 Srivastava LM, 304, 316  
 Srivastava SK, 135, 138  
 Staal M, 169  
 Stacey G, 599, 602  
 Stadler R, 600, 603, 610, 611, 615  
 Stadman ER, 250  
 Staehelin LA, 328, 465, 691, 693, 697  
 Stafford HA, 263  
 Stalmans W, 102, 103  
 Stanbrough M, 599, 617  
 Stapleton AE, 82, 108  
 Stapleton SR, 545, 546  
 Stark MJR, 103, 108  
 Starlinger P, 518  
 Staswick PE, 515, 516  
 Staudenmann W, 697, 698  
 Staudte RG, 448  
 St. Clair D, 519  
 Stecca KL, 548  
 Steczko J, 262, 263  
 Steel A, 610  
 Steele C, 379, 387, 559  
 Steely DM, 358  
 Steeves TA, 358  
 Steffens DL, 54, 55, 61  
 Steffens JC, 132, 146  
 Stein OL, 359  
 Steinbiss HJ, 510, 512, 530  
 Steiner HY, 599, 602  
 Steiner U, 130, 134, 138, 146, 147  
 Steinitz B, 218, 221, 227, 228  
 Steinkamp T, 597  
 Steinmüller K, 288, 289  
 Steitz TA, 610  
 Stelly DM, 370  
 Stenkamp RE, 610

## 744 AUTHOR INDEX

- Stenzler L, 117, 118, 136, 138, 139  
 Stephen AM, 451, 454  
 Stephens PA, 358  
 Stephenson GR, 141  
 Stepien V, 515  
 Steponkus PL, 542  
 Sterk P, 419, 630-32, 637, 641, 642, 647  
 Stevens FJ, 201  
 Stevens TH, 339  
 Stevenson EA, 521  
 Stevenson TW, 513  
 Stevnsner T, 89  
 Stewart GR, 570, 572, 573, 577, 579, 580, 583  
 Stewart RN, 354-57, 359, 361  
 Stiborová M, 275, 277, 280  
 Stiefel V, 310, 383, 453, 630, 636  
 Stiekema WJ, 420, 424  
 Stinard PS, 420, 423, 455, 458  
 Stitt M, 110, 111, 117, 118, 186, 191, 192, 198-200, 204, 388, 433-35, 437-39, 441, 511, 512, 514, 516, 517, 520, 521  
 St-Johnston D, 335  
 Stobart K, 543, 546  
 Stockhaus J, 288, 289  
 Stodola FH, 8  
 Stoltz T, 510, 516, 521, 524  
 Stolz J, 600, 603, 617  
 Stolzner-Jehle A, 83  
 Stone BA, 311, 447, 448, 450-55, 458, 463, 465-67  
 Stone EM, 104  
 Stone JL, 371  
 Stone JM, 102, 106, 113, 114  
 Stoop CD, 235  
 Stoop JMH, 512, 516, 525  
 Storms M, 368  
 Storz G, 231  
 Stotz G, 250  
 Stowe BB, 8  
 St. Pierre B, 513, 514  
 Strasser RJ, 666, 667  
 Stratmann M, 513  
 Strauss NA, 689  
 Strauss G, 389  
 Street AJ, 105, 114  
 Streeter JG, 584  
 Strickland JA, 87  
 Strittmatter G, 135, 139, 143, 144, 146, 149  
 Strittmatter P, 546  
 Strotmann H, 705  
 Strube M, 606  
 Struhl K, 34  
 Struve I, 161  
 Stuart D, 262  
 Stuart JK, 107  
 Stubbe J, 252, 265  
 Studer-Feusi ME, 512, 516, 525  
 Stuitje AR, 27, 29  
 Stuke JE, 546  
 Stulen I, 577, 581, 584  
 Stumpf PK, 409, 410, 412, 414, 415, 544-47  
 Sturm A, 130, 135, 138, 143, 144, 512, 514, 518, 522, 524, 525  
 Styles CA, 598, 600, 603  
 Styles P, 163  
 Szymme S, 546  
 Styling S, 687  
 Stys D, 115  
 Su RT, 336, 340  
 Su SW, 633-35  
 Subramaniam R, 118, 314, 315, 693  
 Subramanian M, 420, 421, 424  
 Suga T, 630, 632, 634, 638, 639  
 Sugano H, 51  
 Sugimoto M, 278  
 Sugimoto T, 110, 117, 118, 335  
 Sugimura T, 105  
 Sugiyama M, 304, 305, 307, 309, 311, 313  
 Sugiyama T, 281, 287, 574, 578, 580, 582, 583, 585  
 Suh SW, 631  
 Sukanya R, 576  
 Sukenik A, 698, 700  
 Sulli C, 699, 701  
 Sullivan ML, 394  
 Summerfelt K, 434, 435, 437, 440  
 Sumper M, 454, 603  
 Sumrada RA, 601  
 Sun G, 102, 109, 115  
 Sun H, 116  
 Sun L, 217, 231, 233  
 Sun SSM, 289  
 Sun T-P, 81  
 Sunaya T, 51, 53, 55, 56  
 Sundquist AR, 131  
 Sundqvist C, 687, 698  
 Sundstrom V, 658, 705  
 Suneja SK, 416  
 Sung HI, 512, 516  
 Sung S-JS, 186, 187, 190, 191, 518, 524  
 Sung SS, 186, 191, 200  
 Sung ZR, 391  
 Sunkel C, 574-76  
 Supek F, 162  
 Supeková L, 162  
 Supplisson S, 611-13  
 Susek RE, 220, 229  
 SUSSEX IM, 351-76; 355, 356, 358, 359, 362, 363  
 Sussman MR, 603  
 Sutherland BM, 82, 83, 88  
 Sutherland GR, 41  
 Sutherland JC, 82, 83, 88, 657, 665, 672  
 Sutherland MW, 145  
 Sutin N, 492  
 Sutter E, 407, 425  
 Suzuki A, 577, 578, 585  
 Suzuki I, 287  
 Suzuki K, 116, 118, 305, 309, 311  
 Svachulová J, 86  
 Svendsen I, 331, 334, 468, 691, 693, 704  
 Svensson B, 419, 629, 635  
 Svoboda KKH, 335  
 Swain MJ, 450  
 Swain SM, 232  
 Swain T, 129  
 Swanson HR, 128, 137, 138, 140, 141  
 Swanson KD, 53  
 Swarup R, 574, 576  
 Sweder K, 93  
 Swida U, 596  
 Swift S, 599, 617  
 Swingle CF, 352  
 Swinhoe R, 106, 107, 109  
 Swoboda P, 89, 92  
 Sychrova H, 599  
 Sylvester AW, 364  
 Sylvestre I, 147  
 Symons M, 54, 57, 59  
 Szalay A, 391, 392  
 Szczegliński J, 109, 111, 116  
 Szczepaniak A, 483, 484, 486, 489, 493, 495  
 Sze H, 160-63, 170, 176, 336, 340  
 Szekeres M, 219  
 Szell M, 219  
 Szkutnicka K, 599  
 SZYMKOWIAK EJ, 351-76; 359, 362, 363  
 Szymkowiak G, 369

## T

- Ta TC, 585  
 Tabaeizadeh Z, 381, 386  
 Tabner B, 81  
 Tae G-S, 479, 480, 482, 492, 493, 495, 501  
 Tagu D, 286, 287, 289  
 Tailon BE, 162  
 Tainer JA, 488  
 Taiz L, 161, 340, 462, 463  
 Takabe K, 311  
 Takabe T, 381, 382, 388, 396  
 Takagi S, 258  
 Takagi T, 305, 313  
 Takahama U, 256  
 Takahashi E, 577  
 Takahashi H, 574  
 Takahashi M, 278, 281, 285, 287  
 Takahashi N, 13, 51, 53, 55-57, 254, 542  
 Takahashi Y, 53-55, 65, 134, 136, 138, 139, 143, 147, 149, 481  
 Takahasi M, 80  
 Takai Y, 59  
 Takaishi S, 667  
 Takao M, 86  
 Takayanagi S, 83, 88  
 Takeba G, 574

# AUTHOR INDEX 745

- Takebe I, 136, 139  
 Takeda S, 117, 118, 465, 525  
 Takegawa K, 646  
 Takeichi M, 108  
 Takemori H, 85  
 Takemoto H, 344  
 Takeuchi A, 513  
 Takishima K, 630-34, 638, 639  
 Talalay P, 131, 132  
 Talke-Messerer C, 512  
 Talon M, 226, 232, 252, 254  
 Talpaert-Borlé M, 86  
 Tam G, 81, 89, 93  
 Tam MF, 134, 138  
 Tamas L, 331  
 Tamura K, 335  
 Tamura S, 8  
 Tan H, 629, 637, 642  
 Tan KH, 130  
 Tan KS, 465  
 Tanaka H, 634, 637  
 Tanaka JI, 598, 599  
 Tanaka K, 255, 260, 264, 335, 416  
 Tanaka T, 136, 139, 628, 630  
 Tanaka Y, 165, 166, 248, 250  
 Tanase S, 257  
 Tanchak MA, 338  
 Taneja KL, 37  
 Tang AH, 149  
 Tang X, 202, 260, 264  
 Taniguchi M, 582, 583  
 Tanji M, 54  
 TANNER W, 595-625; 596, 598, 600-3, 608-11, 613, 615, 616  
 Tanno Y, 41  
 Tano K, 85  
 Tanoue A, 259  
 Tao M, 116  
 Tarczynski MC, 396, 516, 525  
 Tartof KD, 34  
 Tasaka Y, 542, 544-47, 549  
 Tatchell K, 104, 107  
 Tatham AS, 331  
 Tava A, 409  
 Taybi T, 287  
 Taylor A, 355  
 Taylor CB, 31, 38  
 Taylor DC, 410, 415  
 Taylor JB, 131-33  
 Taylor JE, 391  
 Taylor JG, 311  
 Taylor JL, 135, 138, 146  
 Taylor J-S, 82, 85, 86  
 Taylor LP, 260, 264  
 Taylor RM, 83, 84, 88  
 Taylor WC, 229, 288, 291, 358  
 Tazaki M, 257  
 Tchang F, 630, 636, 638  
 Teeri JA, 520  
 Teeri TH, 35, 632, 637, 638, 643  
 Temple SJ, 574-76  
 ten Bookum WM, 146  
 Tenhaken R, 81, 145, 146  
 Ten Lohuis M, 26, 39  
 Tepass U, 335  
 Tepperman JM, 219, 220, 225, 226  
 Terada K, 278, 281, 282, 287  
 Teramura AH, 84  
 Terashima M, 510, 516, 521, 524  
 Terashima N, 311  
 Terras FRG, 629, 643  
 Terstappen G, 379, 559  
 Terzaghi WB, 217  
 Testet E, 647  
 Thayer SS, 665  
 Theil G, 117, 118  
 Thelen MP, 305, 316, 318  
 Theodoris G, 599  
 Theodorou ME, 186, 190, 192-94, 196, 198, 199, 205, 516, 525  
 Theologis A, 138, 149  
 Therein MJ, 492  
 Theres C, 335  
 Theres K, 136, 139  
 Thiede MA, 546  
 Thiel F, 408, 420, 421, 423, 424  
 Thiel G, 176, 595  
 Thiele A, 675  
 Thimann KV, 469  
 This P, 630, 636  
 Thoma S, 419, 630-32, 637-39, 641-43, 645, 647  
 Thomas BR, 510, 512, 515, 516, 521, 524  
 Thomas DS, 516  
 Thomas GMH, 645  
 Thomas I, 629, 635  
 Thomas JC, 169, 287, 698  
 Thomas JR, 450, 451  
 Thomas M, 116, 281, 287, 586  
 Thomas P, 249, 256, 263  
 Thomas TL, 391, 547  
 Thomashow MF, 378, 543, 559  
 Thomine S, 117, 118  
 Thompson GA, 547, 548  
 Thompson GA Jr, 558  
 Thompson JD, 371  
 Thompson JE, 145, 147, 256  
 Thompson JS, 34  
 Thompson M, 501  
 Thompson RJ, 50, 51  
 Thompson WF, 218, 233  
 Thompson-Jaeger S, 104  
 Thomson L, 26  
 Thordal-Christensen H, 53, 66  
 Thorn JM, 453  
 Thornber JP, 665, 666, 670, 686, 691-93, 695, 704  
 Thornberry NA, 318  
 Thornburg LD, 252, 265  
 Thorpe CJ, 26  
 Thorsness MK, 117, 119  
 Thurman DA, 579  
 Tian HC, 359, 362  
 Tidu V, 704  
 Tiedemann R, 357  
 Tiemeier DC, 134, 138, 141  
 Tikka L, 599  
 Tikoo K, 202  
 Tilney-Bassett RAE, 352, 354, 357, 359, 369, 371  
 Timko MP, 391  
 Timmerman KP, 134, 138, 141  
 Tingey SV, 574, 576, 585  
 Tirumala Devi M, 198  
 Tiwari NK, 135, 138  
 Tiwari SC, 336, 338  
 Tjaden G, 571, 572, 581, 585, 586  
 Tjus SE, 691, 692, 705  
 Tobin AK, 83, 84, 88, 187, 190, 201  
 Tobin EM, 27, 28, 217, 231, 233  
 Toda T, 105  
 Todd J, 425  
 Todd JF, 196  
 Todd JW, 407  
 Todo T, 85  
 Togashi S, 108  
 Tognon G, 704  
 Toguri T, 545  
 Toh H, 274, 275, 278, 281, 285-87, 289  
 Token A, 53, 55, 57, 58, 68  
 Tolbert NE, 584  
 Tollier MT, 311  
 Tollin G, 488, 489  
 Tominaga O, 176, 178  
 Tomizaki T, 479  
 Tomizawa K-I, 219, 232  
 Tommasini R, 129, 150, 597  
 Tommassen J, 560  
 Tomos AD, 464  
 Tonelli C, 251  
 Tonks NK, 116  
 Toole EH, 216, 219  
 Toole VK, 216, 219  
 Tooze J, 331, 344  
 Topping JF, 515  
 Török Z, 558  
 Torrent M, 332, 334, 379  
 Torres MA, 314, 469  
 Torres-Schumann S, 383, 637, 638  
 Torrey JG, 303  
 Torruella M, 116  
 Totty N, 85  
 Toung Y-PS, 131  
 Touzet P, 397  
 Towers GHN, 452  
 Toyomasu T, 232  
 Traas J, 105, 106, 108  
 Trainin T, 465  
 Tran TD, 706  
 Tranbarger TJ, 513, 515, 517  
 Tran Thanh Van K, 522  
 Traut TW, 200, 206  
 Trebst A, 479, 480  
 Trémolières A, 628, 657  
 Trench RK, 698, 701  
 Trentham DR, 176  
 Tréousaygue D, 632, 637  
 Trewavas AJ, 113, 173, 176

Triantaphylides C, 137, 146  
 Tribet C, 482, 501  
 Trimitis MG, 262  
 Tripathy BC, 230  
 Trissl HW, 658  
 Trnovsky J, 25, 26  
 Trong HL, 115  
 Tronrud DE, 696  
 Trosko JE, 83  
 Trottier Y, 41  
 Troyan T, 689, 690  
 Truemit E, 600, 603  
 Truettner J, 639, 640  
 Trumbly RJ, 510, 526  
 Trumpower BL, 479, 495, 497, 498  
 Trunk JG, 83  
 Truong H-N, 571, 572, 586  
 Tsai AYM, 111  
 Tsai F-Y, 574, 584, 585  
 Tsay Y-F, 600, 602  
 Tschopp JF, 599  
 Tseng J, 160, 163, 164  
 Tsermoglou D, 484  
 Tsuboi S, 630-32, 637-39, 641, 642  
 Tsugeki R, 630, 631, 637, 641, 642  
 Tsuji H, 381, 384  
 Tsukagoshi Y, 599-601  
 Tsukaya H, 513  
 Tsukihara T, 479  
 Tsukitani Y, 117, 119  
 Tu C-PD, 131, 134, 138, 149  
 Tu Y-SL, 131  
 Tucker AD, 484  
 Tucker GA, 27, 32  
 Tucker KL, 25  
 Tukey HB, 143  
 Turconi S, 705  
 Turnbull M, 232  
 Turner AG, 690  
 Turner AJ, 256, 260  
 Turner JC, 146, 161, 162, 571, 574, 575, 580  
 Turner JF, 186, 187, 190, 195, 204  
 Turner LB, 451  
 Turner M, 331  
 Turpin DH, 186, 187, 190, 193-201, 204, 280  
 Turro C, 492  
 Turton JF, 575, 576  
 Tuttle HA, 407, 408, 413, 420, 421, 423, 642  
 Twary SN, 577  
 Tyerman SD, 595  
 Tyson H, 544, 559  
 Tzamaris D, 34

**U**  
 Uchimiya H, 54, 66, 514  
 Udenfriend S, 247, 257, 262  
 Udvardi MK, 582  
 Ueda H, 381, 382, 388  
 Ueda J, 465

Uemura T, 108  
 Uhrhammer N, 135, 138  
 Ukaji T, 198  
 Uknes S, 248, 252, 256, 260  
 Ullmann GM, 493  
 Ullich CI, 301  
 Ulmasov T, 135, 139, 144, 148, 149  
 Ulrich M, 232  
 Umeda M, 54, 66  
 Umehara Y, 258, 264  
 Umiji K, 278  
 Underhill EW, 410, 415  
 Unger C, 512, 514, 518, 522, 524  
 Unseld M, 599, 602  
 Urao S, 381, 382, 393  
 Urao T, 381, 393  
 Urbach E, 690  
 Urban-Grimal D, 601, 617  
 Urbauer JL, 275-78  
 Urquhart AA, 584, 586  
 Urrestarazu A, 600  
 Usami S, 526  
 Utiyama H, 629  
 Utter MF, 277

## V

Vacha F, 672  
 Vad K, 53, 66  
 Vagnoli P, 599, 602  
 Vahala T, 383, 543, 559  
 Vaillancourt JP, 318  
 Vale RD, 335  
 Valenzuela MRL, 86  
 Valkunas L, 657, 706  
 Vallejos RH, 116  
 Vallés MP, 310, 453  
 Valon C, 379, 380, 393  
 Valsasina B, 333, 527  
 Valverde MA, 596  
 Valverius EM, 53  
 van Aarle PGM, 260  
 Van Amerongen H, 692, 705, 706  
 Van Blokland R, 27, 28  
 Van Bolhuis BM, 692, 706  
 Van Bruggen N, 249, 259  
 Vance CP, 193, 274, 285, 287, 572, 577, 582  
 van de Loo FJ, 433-35  
 van den Berg C, 355  
 van den Berg JA, 53, 55, 63  
 Vandenbol M, 598, 599  
 van den Bossche D, 79  
 van den Broek PJA, 616  
 Van den Bulcke M, 383, 643  
 van der Geer P, 114  
 Van der Geest N, 27, 28  
 van der Heijdt LM, 262  
 Van der Krol AR, 27, 29  
 Van der Lugt NMT, 35  
 van der Luit AH, 251, 264  
 van der Schoot C, 368  
 van der Staay GWM, 689, 690  
 Vanderveer PJ, 440  
 Vanderwel D, 411  
 VanDerWoude WJ, 515, 519  
 van der Zaal BJ, 133, 136, 139, 143, 144, 146, 147  
 van der Zaal EJ, 131, 136, 138, 139, 143, 147  
 van Dijken JP, 616  
 Van Grondelle R, 658, 670, 692, 705, 706  
 van Harten AM, 371  
 van Heusden GPH, 50, 52, 53, 55, 57, 63, 66-68  
 van Hoek A, 667  
 van Holst GJ, 453  
 Van Houdt H, 25, 26, 30, 31, 39  
 Van Kammen A, 419, 630, 632, 637, 641, 647  
 van Kan PJM, 480  
 Vanlerberghe GC, 195  
 Van Leuven F, 629, 643  
 Van Montagu M, 25-27, 30, 31, 39, 80, 88, 105, 643  
 van Ommeren A, 371  
 Van Oosten JJ, 512, 514, 515, 520, 521  
 van Overbeek J, 143  
 Van Quy L, 284  
 Van Room M, 35  
 van Slogteren GMS, 25  
 Vansuyt G, 383  
 van Tuinen A, 217, 219  
 van Tunen AJ, 27  
 Van Vactor D, 335  
 van Vliet PH, 502  
 van Volkenburgh E, 224, 233  
 Van Weelden H, 85  
 van Zeeland AA, 88  
 van Zyl WH, 108  
 Varghese JN, 468  
 Varner CM, 107  
 Varner JE, 304, 305, 310, 312, 313, 318, 454, 637, 642, 644  
 Varshavsky A, 102  
 Vartanian N, 393  
 Vass I, 678  
 Vater CA, 339  
 Vaucheret H, 25, 30, 40, 41, 514, 524, 586  
 Vaughan JE, 82  
 Vaughan P, 80  
 Vaulont S, 510  
 Vauquelin LN, 583  
 Veit B, 365  
 Veith R, 192, 198  
 Velasco R, 381, 382  
 Veldink GA, 260, 262  
 Velemínsky J, 85, 86  
 Vella J, 197, 199, 204  
 Velterop J, 136, 139, 146, 147  
 Vener AV, 480  
 Vera P, 311  
 Vera-Estrella R, 105, 109  
 Verbeke JA, 368  
 Vergnolle C, 628-31, 633, 641, 645  
 Verhoeven AS, 660, 661, 666, 675

- Verly WG, 79  
 Verma DPS, 574, 576  
 Vermaas WFJ, 687, 688, 706  
 Vermeulen W, 93  
 Vernon DM, 169, 381, 382  
 Vermooij B, 146  
 Versluis W, 502  
 Ververidis P, 255  
 Vesik M, 703  
 Vézina L-P, 383, 543, 559  
 Vian B, 313  
 Vianelli A, 658, 674, 705  
 Vianello A, 247  
 Viard M-P, 118  
 Vicente-Carbajosa J, 586  
 Vida TA, 339, 340  
 VIDAL J, 273-97; 193, 196,  
 197, 200, 201, 205, 206, 274,  
 275, 280-83, 285, 287, 289,  
 577, 578  
 Vierling E, 333  
 Vierstra RD, 217, 223, 226, 232  
 Viétor RJ, 447  
 Viger PR, 140, 141  
 Vigh L, 558, 559  
 Vignols F, 314, 419, 469, 630,  
 632, 637-39, 641  
 Vilardell J, 379, 390, 391  
 Villa M, 141  
 Villarroel R, 88, 383  
 Villemur R, 574  
 Vincent JR, 151  
 Vincente-Carbajosa J, 526  
 Vincentz M, 40, 41, 514, 524,  
 586  
 Viola R, 191  
 Vioque B, 255  
 Viotti A, 26  
 Virgin I, 555, 557  
 Visser RGF, 513, 514, 516,  
 517, 521, 522  
 Vissers S, 600  
 Vitale A, 328, 330, 331, 333,  
 343  
 Vivekananda J, 391  
 Vlahov G, 409  
 Vliegenthart JA, 7  
 Vliegenthart JFG, 7, 260, 262  
 Voelker T, 415  
 Voelker TA, 434-37, 440  
 Vogel CS, 520  
 Vogel H, 606  
 Vogel JM, 420, 424  
 Vogel JP, 333  
 Vogt E, 178, 597  
 Vogt T, 82, 314, 467  
 Volland C, 601, 617  
 Vollbrecht E, 365  
 Volokita M, 332  
 VON ARNIM A, 215-43  
 von Arnim AG, 220, 222, 223,  
 225, 229, 230, 232-35  
 von Jagow G, 481, 482, 491,  
 493, 500, 503  
 Vonk MJ, 146  
 Von Schawen A, 328, 520,  
 525  
 von Wettstein D, 334, 631,  
 641, 690  
 von Wettstein-Knowles PM,  
 406, 412, 417-22, 425, 629  
 Vooijs R, 146  
 Voragen AGJ, 447  
 Voss J, 609  
 Vovelle F, 633, 634  
 Vredenberg WJ, 502  
 Vreugdenhil D, 521, 522  
 Vrijlandt E, 250, 251  
 Vu N, 57
- ## W
- Wachter E, 601  
 Wada H, 543, 546, 547,  
 551-54, 556-59  
 Wadsworth GJ, 582  
 Wagner C, 501  
 Wagner D, 217, 219, 220, 225,  
 226, 233, 234, 585  
 Wagner ED, 77, 222  
 Wagner GJ, 142, 170  
 Wagner KG, 176, 178  
 Wagner MJ, 490, 493, 501  
 Wagner PD, 57  
 Wagner R, 597  
 Walbot V, 26, 42, 82, 92, 130,  
 136, 139, 141, 142, 147, 149,  
 150  
 Waldron JC, 524  
 Waldron KW, 467  
 Walker EL, 574-76, 585  
 Walker GC, 77, 86, 89, 91  
 WALKER JC, 101-25; 102,  
 105, 106, 113, 114, 117, 119  
 Walker RP, 117, 118, 201  
 Walker-Simmons MK, 381,  
 386, 394, 440  
 Wall JK, 225  
 Wallace DC, 80  
 Wallace JC, 331  
 Wallrath LL, 33  
 Wallroth M, 639, 640  
 Wallsgrove RM, 571-75, 578,  
 580  
 Walmsley AR, 610  
 Walsh CT, 278  
 Walsh WC, 128, 138, 140,  
 141  
 Walter F, 110  
 Walter G, 102, 103, 109  
 WALTERS RG, 655-84;  
 661-65, 669, 687, 692, 693  
 Walton TJ, 407, 412, 413  
 Walz D, 501  
 Wan J, 190, 196, 202  
 Wandelt CI, 333  
 Wang CY, 542  
 Wang DN, 482, 657, 687, 691,  
 693, 702-4  
 Wang H, 260, 264  
 Wang HY-C, 386  
 Wang J, 468  
 Wang MM, 397  
 Wang X, 207  
 Wang YH, 275, 281, 282, 285  
 Wang Z, 497  
 Wanjura WJ, 370  
 Wanner LA, 315  
 Ward DA, 248, 252, 254, 256,  
 260  
 Ward E, 134, 138, 141, 586  
 Ward JF, 81  
 Ward JM, 160-62, 172, 595,  
 610  
 Wardlaw IF, 510  
 Warmbrodt RD, 519  
 Warren MJ, 582  
 Warren ST, 41  
 Washburn T, 217, 220, 231,  
 233, 234  
 Wasielewski MR, 667  
 Wassenegger M, 30  
 Wassermann K, 89  
 Watahiki MK, 136, 138, 139  
 Watanabe M, 53-55, 65, 224,  
 225  
 Watanabe S, 419, 631, 633, 634  
 Watanabe SI, 630  
 Watanabe T, 553  
 Watanabe Y, 316, 318  
 Watanabe A, 574  
 Waterfield MD, 85  
 Watson AT, 574, 576  
 Watson BE, 62  
 Watson CF, 27, 28, 31, 256,  
 260  
 Watson JC, 162, 163  
 Waymire JC, 54  
 Webb AAR, 391  
 Webber AN, 687, 688  
 Weber A, 601, 605  
 Weber D, 420, 423  
 Weber E, 342, 419, 601  
 Weber H, 512, 514  
 Weber N, 705  
 Weber S, 545  
 Webster JL, 675  
 Webster PL, 367, 515, 522  
 Wechsler MA, 161  
 Wedding RT, 285, 287  
 Wedel N, 692, 702  
 Weeden NF, 581, 582  
 Weekes J, 110, 111, 117, 119  
 Wehmeyer B, 217  
 Wei N, 220, 222, 223, 229,  
 232-35  
 Weibull C, 703, 704  
 Weig A, 600, 603, 637  
 Weigend M, 285  
 Weil CF, 88  
 Weiland-Heidecker U, 220,  
 229, 232  
 Weiler EW, 54, 62, 130, 134,  
 138, 146, 147  
 Weiner H, 111, 191, 437-39  
 Weintraub H, 33  
 Weis E, 656, 659-62, 677  
 Weisbeek P, 233, 355  
 Weisbeek PJ, 396  
 Weiser T, 171, 176

## 748 AUTHOR INDEX

- Weiss D, 27, 251, 264  
 Weisz J, 450  
 Weklych R, 452  
 Wellburn AR, 81, 147  
 Weller JL, 219  
 Weller KM, 465  
 Weller W, 59  
 Wellmann E, 83, 217  
 Wells B, 386, 458  
 Welte C, 697  
 Welters P, 646  
 Wen IC, 520  
 Wen T-J, 420, 423  
 Wendel JF, 581  
 Went FW, 143  
 Wenzel TJ, 53, 55, 63  
 Wenzler HC, 513, 517, 530  
 Wera S, 291  
 Weretilyk E, 383, 543, 559  
 Werneke JM, 79  
 Werner D, 285  
 Werner DJ, 370  
 Werr W, 512, 518, 527  
 Werst M, 706  
 Wesselius JC, 232  
 Wessler SR, 79  
 West IC, 598  
 Wester L, 226  
 Westerhoff HV, 202  
 Westgate ME, 524  
 Westhoff P, 286, 288, 289,  
 291, 510, 512, 530  
 Wettenhall REH, 453, 468  
 Weusthuis RA, 616  
 Whelan J, 265  
 Whelan TM, 453  
 Whetten R, 313, 452, 468  
 Whetten RW, 370  
 Whistler RL, 446  
 White AJ, 543, 559, 637, 638,  
 644, 645  
 White DA, 381, 385  
 White JA, 344  
 White MJ, 218, 233, 693  
 White PJ, 178  
 White RA, 687  
 White TC, 383, 543, 559  
 White W, 597, 598  
 Whitelam GC, 81, 217, 219,  
 220, 225, 226, 230, 232, 585  
 Whitfield HV, 410  
 Whitfield KM, 333  
 Whitham TG, 370, 371  
 Whiting DA, 249, 259  
 Whitkus R, 42  
 Whitmarsh J, 500  
 Whittorn D, 448  
 Whitters EA, 645, 647  
 Whyte M, 318  
 Wick SM, 308, 309  
 Wickner W, 560  
 Widersten M, 130, 139, 145,  
 146  
 Widger WR, 479, 480, 493,  
 499, 503  
 Widholm JM, 358  
 Wiegand RC, 134, 138, 141  
 Wiemken A, 336, 338  
 Wieringa PJ, 41  
 Wierzbicki A, 547, 548  
 Wikström M, 502  
 Wikström MK, 498  
 Wild A, 281, 287, 291, 697,  
 703  
 Wildenberger K, 520  
 Wildman SG, 524  
 Wilhelm C, 697, 698, 700, 703  
 Wilhelm JE, 335  
 Wilke I, 111, 433  
 Wilkie KCB, 446, 455, 458  
 Wilkie SE, 582  
 Wilkins MB, 110, 117, 119,  
 275, 281, 283, 285  
 Wilkins TA, 336, 338  
 Wilkinson JQ, 81  
 Wilkinson MC, 85  
 Will A, 596, 608-10  
 Willeford KO, 285  
 Willemoes, 522, 524  
 Willemssen V, 355  
 Willey DL, 483, 601  
 Williams AS, 201, 207  
 Williams J, 383, 384  
 Williams JGK, 552  
 Williams JHH, 510, 516, 521,  
 522, 530  
 Williams RJ, 388  
 Williams RS, 486  
 Williams SA, 492  
 Williamson G, 130  
 Williamson JD, 390, 512, 516,  
 525  
 Willis CL, 232  
 Willmitzer L, 192, 434, 435,  
 437, 442, 512-17, 520, 522,  
 525, 526, 596, 600, 603, 675  
 Wilson FH, 704  
 Wilson GL, 89  
 Wilson ID, 257, 260  
 Wilson JE, 117, 119  
 Wilson PM, 192  
 Wilson RH, 458, 459  
 Wilson TH, 598  
 Wingate VPM, 146  
 Wingle G, 662, 666, 670  
 Winicov I, 394  
 Wink M, 336, 338  
 Winkler FJ, 277  
 Winkler H, 26, 37, 353  
 Winkler JR, 492  
 Winkler RG, 397  
 Winspear MJ, 581  
 Winter K, 275, 281, 382, 674  
 Winters AL, 516, 520, 522  
 Wirsching P, 275  
 Wirth E, 277  
 Wirtz KWA, 628, 631, 633,  
 636, 642, 645  
 Wishnok JS, 252, 265  
 Wiskich JT, 579  
 Witt D, 357, 368  
 Witt HT, 689  
 Witt I, 687, 689  
 Witte ON, 59  
 Wittmershaus BP, 706  
 Wobus U, 512, 514  
 Wohlrab H, 601  
 Woitke P, 662, 670  
 Wojtaszek P, 310  
 Wolf A, 301  
 Wolf D, 617  
 Wolf K, 600, 610, 615  
 Wolf S, 330, 368, 641  
 Wolfe GR, 698, 699  
 Wolfrail L, 543, 559  
 Wolfrail LA, 543, 544, 559  
 Wollenberger L, 703, 704  
 Wollman F-A, 480, 494, 495,  
 688, 697, 698  
 Wolniak SM, 117, 119  
 Wolter F-P, 544, 545, 549, 554,  
 555  
 Wolynetz MS, 469  
 Wong D, 89  
 Wong JH, 197, 200, 201, 205  
 Wong L-M, 138, 149  
 Wong N, 81, 89, 93  
 Wood HC, 277  
 Wood HG, 277  
 Wood PJ, 450, 469  
 Woodgate R, 116  
 Woodgett JR, 116  
 Woodson WR, 133, 135, 138,  
 147, 149, 260, 264  
 Woodward JR, 448, 450, 469  
 Woolf VM, 706  
 Wooten JB, 452  
 Worrell AC, 434, 435, 437, 440  
 Wrede P, 596  
 Wrench PM, 698, 700, 701  
 Wright EM, 611-13, 618  
 Wright JK, 598, 605, 606  
 Wrobel RL, 333  
 Wrobelboerner EA, 688, 690  
 Wu B, 162  
 Wu HB, 194, 199, 200, 204  
 Wu J, 549, 551, 608, 609  
 Wu K, 54, 55, 248, 252, 260,  
 264  
 Wu LL, 514, 522  
 Wu M-X, 201, 205, 285  
 Wu R, 453  
 Wu S-J, 110, 117, 118  
 Wu YN, 57, 333, 334, 464  
 Wu Z, 246, 247  
 Wuestehube LJ, 37  
 Wykoff D, 81, 84, 88, 93  
 Wynan K, 700  
 Wynn RM, 704

## X

- Xia J-H, 192  
 Xia K, 54, 57  
 Xia YI, 420, 423, 424  
 Xiang M, 202  
 Xiao B, 67  
 Xiao W, 85  
 Xie D-L, 480  
 Xing Y-G, 41

- Xu D-P, 186, 187, 190, 191,  
 200, 518, 524  
 Xu J, 512, 514, 516, 518-20,  
 524  
 Xu PL, 468  
 Xu Q, 689  
 Xu XJ, 420, 423, 424  
 Xu Y, 217, 225, 585  
 Xu Y-L, 248, 252, 260, 264
- Y**
- Yabe I, 174, 176, 177  
 Yacobi YZ, 698  
 Yadagiri P, 265  
 Yadav NS, 547, 548  
 Yagishita N, 357  
 Yahara I, 344  
 Yajima H, 83, 84, 86, 90  
 Yamada M, 419, 612, 613,  
 615, 628-31, 633, 634, 637,  
 641, 642  
 Yamada Y, 249, 252, 255, 260,  
 264, 314  
 Yamagata H, 335  
 Yamaguchi H, 479  
 Yamaguchi Y, 286  
 Yamaguchi-Shinozaki K, 135,  
 138, 381-84, 386, 390-93  
 Yamaki T, 8  
 Yamamori B, 54, 57, 59  
 Yamamoto A, 344  
 Yamamoto E, 311, 312, 452  
 Yamamoto HY, 662, 669, 677,  
 686  
 Yamamoto KT, 136, 138, 139,  
 225, 547, 548  
 Yamamoto M, 106, 112  
 Yamamoto S, 264  
 Yamamoto Y, 86  
 Yamamoto YT, 436, 438  
 Yamane H, 232, 263  
 Yamano H, 104, 107  
 Yamashita E, 479  
 Yamashita S, 599-601  
 Yamashita Y, 196  
 Yamauchi T, 51, 53, 54, 56, 60  
 Yamaya T, 573, 574, 577,  
 580  
 Yamazaki M, 41  
 Yan J, 115  
 Yanagida M, 104, 105, 107  
 Yanagisawa S, 286-89  
 Yanai Y, 286  
 Yang A, 386  
 Yang C-M, 115  
 Yang G, 407  
 Yang P, 420, 421, 424
- Yang SF, 247, 249, 255-57,  
 260  
 Yang XH, 498  
 Yang Y, 513  
 Yano M, 278, 287  
 Yashar BM, 54, 57  
 Yasuhira S, 84, 86  
 Yasui A, 83, 84, 90  
 Yatsuki H, 187, 190  
 Ye Z-H, 304, 305, 310, 312,  
 318, 637, 642, 644  
 Yeates TO, 488, 490  
 Yee BC, 197, 200  
 Yelenosky G, 525  
 Yen G, 408, 421, 424  
 Yenofofsky RL, 264  
 Yeo PF, 447, 455  
 Yeoman MM, 357, 525  
 Yerkes CT, 665  
 Yeung EC, 305, 307  
 Yi LSH, 686, 693  
 Yin S, 82  
 Yocum CF, 687, 692  
 Yokoyama R, 514  
 Yoshiba Y, 381, 382, 388  
 Yoshida N, 513  
 Yoshida S, 166  
 Yoshimori T, 344  
 Yoshimura T, 305, 307, 309  
 Yoshioka I, 278, 281, 285, 287  
 You R, 391  
 Young AC, 217, 662, 669, 671  
 Young AJ, 662, 664-67, 669,  
 671, 672, 674, 675  
 Young AT, 570  
 Young HL, 547, 548  
 Young JC, 218, 220, 225, 227  
 Youssefian S, 231  
 Yow YM, 454  
 Yu C-A, 482  
 Yu H, 419, 630, 641, 643, 647  
 Yu J, 314  
 Yu L-X, 381, 482  
 Yu S, 41  
 Yu SM, 511, 512, 514, 515  
 Yu YG, 631, 633  
 Yuan CX, 512, 514, 516, 519,  
 520  
 Yuan J, 318  
 Yue W-H, 482  
 Yun D-J, 249, 255  
 Yung M-H, 315
- Z**
- Zabala MD, 513, 517, 530  
 Zabaleta E, 513  
 Zachowski A, 628, 636  
 Zak DR, 520  
 Zambryski P, 88  
 Zamir A, 676, 701  
 Zammit A, 198  
 Zarlango RP, 134, 138  
 Zarrabi AA, 407  
 Zeevaart JAD, 226, 232, 248,  
 252, 254, 260, 264, 265  
 Zegouti H, 256, 260, 263  
 Zehnacker C, 578, 585  
 Zeiger E, 171, 176  
 Zellenka U, 104  
 Zetsche K, 510, 512, 513, 517,  
 521, 530  
 Zettl R, 134, 138, 143, 144, 146  
 Zhang B, 148  
 Zhang D-Z, 333, 334  
 Zhang FP, 41, 333  
 Zhang G, 37  
 ZHANG H, 477-508; 105,  
 106, 108, 483, 490, 491, 494  
 Zhang K, 117, 119  
 Zhang L, 383, 543, 559, 599,  
 602, 637, 644  
 Zhang SQ, 284  
 Zhang XQ, 275, 284  
 Zhang XS, 260  
 Zhang Y-Y, 263  
 Zhang ZH, 249, 256, 263  
 Zhang ZJ, 105  
 Zhao JH, 86  
 Zhao ZG, 488, 489  
 Zhen R-G, 166, 167  
 Zhong HH, 217  
 Zhou J, 137, 138  
 Zhu X-Z, 333, 344  
 Zhu Y, 257, 260, 667  
 Ziegler A, 91  
 Ziegler H, 277  
 Zilinskas BA, 381, 385  
 Zimmerlin A, 262, 313  
 Zimmerman K, 510, 512, 530  
 Zimmermann MH, 301  
 Zimmermann S, 117, 118  
 Zimniak L, 161  
 Zimolo Z, 160  
 Zingarelli L, 164, 168-70  
 Zinselmeier C, 524  
 Zipursky SL, 335  
 Zirnigbl S, 480  
 Zokolica M, 518  
 Zolnierowicz S, 108  
 Zou Y-P, 482  
 Zrenner R, 516, 522  
 Zuber H, 697, 698  
 Zucchelli G, 658, 674, 705  
 Zupan LA, 54, 55, 61  
 zur Nieden U, 342

# SUBJECT INDEX

## A

- Al* gene
  - homology-dependent silencing phenomena and, 35, 37
- Abscicic acid
  - dioxygenases and, 245
- Aberrant transcripts
  - homology-dependent silencing phenomena and, 32, 39
- Abf1 protein
  - homology-dependent silencing phenomena and, 34
- AB11 gene
  - protein phosphatases and, 112-13
- Acanthifolicin
  - protein phosphatases and, 117
- Acceptor membrane
  - lipid-transfer proteins and, 636
- Acer pseudoplatanus*
  - tonoplast ion transport and, 164, 168, 176
- Acetabularia* sp.
  - protein phosphatases and, 106, 109
- Active elements
  - homology-dependent silencing phenomena and, 36-37
- Active oxygen species
  - glutathione-S-transferases and, 145-47
- Acyl-ACP desaturases
  - and chilling sensitivity and membranes, 547-48
- Acyl chains
  - lipid-transfer proteins and, 627, 630-31, 634-35, 647
- Acyl-lipid desaturases
  - and chilling sensitivity and membranes, 541, 546-48
- Acyl primer
  - wax biosynthesis control and, 405
- Acyltransferases
  - and chilling sensitivity and membranes, 545
- ada* gene
  - and DNA damage and repair, 85
- Adaptive response
  - and DNA damage and repair, 79-80
  - lipid-transfer proteins and, 627, 644-45
- Adenosine diphosphate (ADP)
  - ribosylation 14-3-3 proteins and, 54, 62, 65
- Adenosine triphosphate (ATP)
  - glycolysis and, 185, 192
  - tonoplast ion transport and, 170, 173
  - wax biosynthesis control and, 405
- ADP
  - See Adenosine diphosphate
- Adrenodoxin
  - 14-3-3 proteins and, 61
- Agrobacterium* sp.
  - phosphoenolpyruvate and, 291
  - xylogenesis and, 301
- Aleurain
  - and compartmentation in ER and vacuole, 337-38
- Aleurone
  - and compartmentation in ER and vacuole, 337-38
  - tonoplast ion transport and, 171
- Alfalfa
  - and DNA damage and repair, 88
  - protein phosphatases and, 106, 109
  - wax biosynthesis control and, 407
- Algae
  - light-harvesting proteins and, 696-701
  - photosynthetic pigment proteins and, 685
- Alkaloids
  - dioxygenases and, 245, 254-55
- Alkylation damage
  - DNA and, 79-80
- Allelic copies
  - inactivation
  - homology-dependent silencing phenomena and, 24
- Allium porum*
  - wax biosynthesis control and, 414
- Allium* sp.
  - and compartmentation in ER and vacuole, 336
- Allosteric regulation
  - light harvesting regulation and, 672-73
- $\alpha$ -amylase
  - homology-dependent silencing phenomena and, 38
- $\alpha$ -helices
  - transmembrane cytochrome *b5f* complex and, 483-84
- Amaranthus* sp.
  - phosphoenolpyruvate and, 286, 291
- Amiloride
  - tonoplast ion transport and, 170
- Amino acids
  - 14-3-3 proteins and, 66
  - lipid-transfer proteins and, 631-32
  - membrane transport carriers and, 595, 598-601, 606, 616
  - nitrogen assimilation and, 569, 571-87
  - sucrose-phosphate synthase and, 431, 435
- 1-Aminocyclopropane-1-carboxylate oxidase
  - dioxygenases and, 245, 255-58
- [*N*-(6-Aminohexyl)-5-chloro-1-naphthalenesulfonylamide]
  - tonoplast ion transport and, 171
- Ammonia
  - photorespiratory nitrogen assimilation and, 572-73
- Amphidinium* sp.
  - photosynthetic pigment proteins and, 701
- Amplification
  - gene
    - homology-dependent silencing phenomena and, 41-42
- An13* gene
  - glutathione-S-transferases and, 142



- Anabaena variabilis*  
phosphoenolpyruvate and, 290
- Anacystis nidulans*  
phosphoenolpyruvate and, 290
- Angiosperms  
hydrolytic damage and, 78  
light control of seedling development and, 216
- Anion channel  
protein phosphatases and, 118
- Anion transporters  
inorganic  
membrane transport carriers and, 603-4
- Antennae  
internal  
Photosystem I and, 689  
prokaryotic Chl *a/b*  
photosynthetic pigment proteins and, 689, 690, 691
- Anthocyanidin synthase  
dioxigenases and, 250-51
- Anthocyanins  
glutathione-S-transferases and, 127, 139, 141-42, 150-51  
homology-dependent silencing phenomena and, 28  
light control of seedling development and, 223
- Antibodies  
and DNA damage and repair, 88  
14-3-3 proteins and, 57  
glycolysis and, 208  
lipid-transfer proteins and, 636  
tonoplast ion transport and, 164  
xylogenesis and, 310
- Antimycin D  
tonoplast ion transport and, 164
- Antirrhinum majus*  
homology-dependent silencing phenomena and, 27
- Antirrhinum* spp.  
chimeras and, 366
- Antisense RNA  
homology-dependent silencing phenomena and, 28, 31-32, 38-39
- Apical meristem  
light control of seedling development and, 221
- Application quotient  
value of, 19-20
- Arabidopsis* sp.  
and chilling sensitivity and membranes, 550-51, 557-58  
chimeras and, 355  
and compartmentation in ER and vacuole, 332  
dioxigenases and, 252, 254, 259, 261, 264  
and DNA damage and repair, 75, 79, 81-84, 88-90, 93-94  
14-3-3 proteins and, 53-56, 60, 62-63, 65, 68  
glutathione-S-transferases and, 132, 134, 136-38, 143, 147  
homology-dependent silencing phenomena and, 25  
light control of seedling development and, 215-30  
phosphoenolpyruvate and, 286  
protein phosphatases and, 105-6, 108-9, 111-14, 119  
wax biosynthesis control and, 407-8, 412-13, 423-25  
xylogenesis and, 303-4, 308, 312, 314-15
- Arabidopsis thaliana*  
dehydration tolerance and, 379-84, 386, 391-93  
lipid-transfer proteins and, 632, 636-43, 645-46  
membrane transport carriers and, 599-603, 605, 612-13  
tonoplast ion transport and, 161-62, 166-78
- Aromatic substances  
cell walls of grasses and, 445, 451-52
- AS  
See Asparagine synthase
- Ascolobus immersus*  
homology-dependent silencing phenomena and, 39-40
- Asparagine synthase (AS)  
nitrogen assimilation and, 569, 583-85
- Aspartate aminotransferase (AspAT)  
nitrogen assimilation and, 569, 582-83
- AspAT  
See Aspartate aminotransferase
- Aspergillus nidulans*  
protein phosphatases and, 108
- Assimilate partitioning  
carbohydrate-modulated genes and, 522, 524-25
- Atomic structure  
photosynthetic pigment proteins and, 685, 693-96
- ATP  
See Adenosine triphosphate
- ATPase  
14-3-3 proteins and, 61-62, 64
- ATP-Mg  
protein phosphatases and, 104
- Atropa belladonna*  
dioxigenases and, 255
- Autoregulation model  
homology-dependent silencing phenomena and, 31
- Auxin-binding proteins  
glutathione-S-transferases and, 143-45
- Auxins  
glutathione-S-transferases and, 127, 130, 138-39, 143-45, 148  
history of, 7, 9  
light control of seedling development and, 227-28, 231  
lipid-transfer proteins and, 644  
protein phosphatases and, 110, 118
- Aves  
14-3-3 proteins and, 54
- 5-Azacytidine  
homology-dependent silencing phenomena and, 40
- Azide  
tonoplast ion transport and, 161
- Azolla* sp.  
xylogenesis and, 308
- ## B
- Ba<sup>2+</sup>  
tonoplast ion transport and, 173-74, 176
- Bacteria  
cytochrome *b6f* complex and, 477
- Bafilomycin A<sub>1</sub>  
tonoplast ion transport and, 161
- Balanophora* sp.  
chimeras and, 371
- Banana  
glycolysis and, 198, 200
- BAP1 protein  
14-3-3 proteins and, 55, 59
- Barley  
and compartmentation in ER and vacuole, 337-38

- 14-3-3 proteins and, 53, 66  
glutathione-S-transferases and, 140  
homology-dependent silencing phenomena and, 38  
lipid-transfer proteins and, 632, 636-37  
tonoplast ion transport and, 168, 171  
wax biosynthesis control and, 407, 421-22
- Base excision repair  
DNA and, 85-86
- Bcr-Abl protein kinase  
14-3-3 proteins and, 54, 58
- Beta vulgaris*  
dehydration tolerance and, 395  
tonoplast ion transport and, 162, 165-68, 170
- Blocks  
homology-dependent silencing phenomena and, 25
- BMH genes  
14-3-3 proteins and, 53, 55, 57, 59, 63, 66-67
- bmi-1* gene  
homology-dependent silencing phenomena and, 35
- Botryococcus braunii*  
wax biosynthesis control and, 424
- "Bottom up" regulation  
glycolysis and, 185, 204
- Brain  
14-3-3 proteins and, 50-58, 65  
protein phosphatases and, 105
- Brassica campestris*  
lipid-transfer proteins and, 636  
protein phosphatases and, 118-19
- Brassica napus*  
dehydration tolerance and, 383  
glycolysis and, 192  
lipid-transfer proteins and, 637  
phosphoenolpyruvate and, 286  
protein phosphatases and, 104, 106, 109, 111, 119  
wax biosynthesis control and, 412, 417
- Brassica nigra*  
glycolysis and, 192-94, 206
- Brassica oleracea*  
lipid-transfer proteins and, 637, 640  
protein phosphatases and, 105-6, 119  
wax biosynthesis control and, 412
- Brassica* sp.  
light control of seedling development and, 219  
wax biosynthesis control and, 407, 410
- Breathing  
and DNA damage and repair, 80
- Broadleaf weeds  
glutathione-S-transferases and, 140
- Broccoli  
glutathione-S-transferases and, 135, 138  
lipid-transfer proteins and, 632, 637, 643
- Bronze-2 gene  
glutathione-S-transferases and, 139, 142
- brown* locus  
homology-dependent silencing phenomena and, 40
- ## C
- $Ca^{2+}$   
14-3-3 proteins and, 54, 64  
protein phosphatases and, 103, 112-13, 115, 119  
sucrose-phosphate synthase and, 438  
tonoplast ion transport and, 159, 171-73  
xylogenesis and, 307-8
- $Ca^{2+}/H^{+}$  antiporter  
tonoplast ion transport and, 170
- $Ca^{2+}$ -selective channels  
tonoplast ion transport and, 173-77
- CAB/FCP/ELIP/HLIP family  
photosynthetic pigment proteins and, 702
- Caenorhabditis elegans*  
xylogenesis and, 318
- Calcium-calmodulin-dependent protein kinase II  
14-3-3 proteins and, 56
- Calmidazolium  
tonoplast ion transport and, 171
- Calmodulin  
tonoplast ion transport and, 171, 176  
xylogenesis and, 307-8
- Calmodulin-dependent protein kinase II  
14-3-3 proteins and, 51
- Calyculin A  
protein phosphatases and, 110, 116-17
- Cambial initials  
xylogenesis and, 299
- Camellia japonica*  
chimeras and, 361
- Camellia sasanqua*  
chimeras and, 361
- cAMP-dependent kinase  
14-3-3 proteins and, 51
- CaMV  
See Cauliflower mosaic virus
- Cantharidin  
protein phosphatases and, 117
- Cap structure  
homology-dependent silencing phenomena and, 38
- Carbohydrate metabolism  
glycolysis and, 185, 192
- Carbohydrate-modulated genes  
assimilate partitioning, 521-22, 524-25  
carbohydrate abundance and sugar-responsive genes, 516-17  
carbohydrate depletion and sugar-responsive genes, 513-16  
carbohydrates as substrates and signals, "feast and famine" responses at gene expression level, 511-19, 523  
carbohydrates as substrates and signals, biological significance, 510-11  
carbohydrate-sensing systems, 525-30  
contrasting response classes among genes for sucrose metabolism, 518-19  
development, 521-22, 524-25  
hexose phosphorylation, 526  
implications at cell and organism level, 519-22, 524-25  
introduction, 510  
key metabolites as direct signals, 530  
long-term metabolic changes, 519-21  
plasma membrane transfer, 527-29  
protein kinase cascades, 526-27
- Carbon dioxide  
dioxigenases and, 255-56  
sucrose-phosphate synthase

- and, 440
- tonoplast ion transport and, 159, 178
- Carboxylation
  - phosphoenolpyruvate and, 275-76, 280
- Carnation
  - glutathione-S-transferases and, 132, 135
- $\beta$ -Carotene
  - photosynthetic pigment proteins and, 688
- Carotenoids
  - light harvesting regulation and, 665-66
  - oxygenic photosynthesis and, 685-706
- Carrot
  - and DNA damage and repair, 87
  - glycolysis and, 202
  - lipid-transfer proteins and, 632, 637
  - protein phosphatases and, 104, 111, 119
  - xylogenesis and, 310
- Castor bean
  - lipid-transfer proteins and, 632, 636-37
- Catabolite inactivation
  - membrane transport carriers and, 616
- Catalytic mechanisms
  - dioxygenases and, 256
  - phosphoenolpyruvate and, 278-80
- Catharanthus roseus*
  - chimeras and, 368
  - glycolysis and, 193
  - protein phosphatases and, 119
- Cation transporters
  - inorganic membrane transport carriers and, 603-4
- Cauliflower
  - protein phosphatases and, 111, 119
- Cauliflower mosaic virus (CaMV)
  - glutathione-S-transferases and, 148
  - homology-dependent silencing phenomena and, 25
- c-Bcr protein kinase
  - 14-3-3 proteins and, 54
- Cd<sup>2+</sup>
  - tonoplast ion transport and, 170
- cDNA
  - See Copy DNA
- Cell autonomy
  - light control of seedling development and, 223
- Cell-cell communication
  - light control of seedling development and, 223
- Cell cycle regulation
  - protein phosphatases and, 101, 117, 119
- Cell division
  - chimeras and, 351
  - xylogenesis and, 307
- Cell fate
  - chimeras and, 351
- Cell-specific expression
  - 14-3-3 proteins and, 65-66
- Cell-type specificity
  - lipid-transfer proteins and, 639-41
- Cellular mechanisms
  - homology-dependent silencing phenomena and, 32-42
- Cellular metabolism
  - glutathione-S-transferases and, 127, 150-51
  - protein phosphatases and, 110-11, 117
- Cellulose
  - cell walls of grasses and, 445, 447
- Cell wall
  - grasses and architecture, 458-61
  - aromatic substances, 451-52
  - biogenesis, 465-67
  - cellulose, 447
  - cell-wall substances, 454
  - genetic models, 467-69
  - glucans, 448-50, 466-67
  - glucuronoarabinoxylans, 447-48
  - glycans, 450
  - introduction, 446-47
  - Monocotyledonae, 454-58
  - pectic substances, 450-51
  - Poaceae, 447-54
  - polysaccharides, 467
  - structural dynamics during cell elongation, 462-65
  - structural proteins, 453-54
  - xyloglucan, 450
  - proteins
    - xylogenesis and, 310
- Cereals
  - cell walls of grasses and, 445-46
- Chalcone synthase gene
  - homology-dependent silencing phenomena and, 27-28, 36
  - light control of seedling development and, 223, 230-31
- Channeling
  - glycolysis and, 202
- Chaperones
  - and compartmentation in ER and vacuole, 333-34
  - 14-3-3 proteins and, 61, 69
  - protein phosphatases and, 105
- Checkpoint mutant
  - 14-3-3 proteins and, 63
- Checkpoint responses
  - and DNA damage and repair, 93
- Chemical protease
  - membrane transport carriers and, 609
- Chenopodium rubrum*
  - glycolysis and, 204
  - membrane transport carriers and, 603
- Chickpea
  - glutathione-S-transferases and, 137, 139
- Chilling sensitivity
  - membranes and acyltransferases, 545
  - Arabidopsis* other transgenic plants, 557-58
  - D<sub>1</sub> protein turnover, 557
  - desaturases, 546-48
  - desaturation of membrane lipids, 558-59
  - disruption of genes for desaturases in *Synechocystis* sp. PCC6803, 551-54
  - cDNA overexpression for glycerol-3-phosphate acyltransferases in tobacco plants, 548-50
  - gene expression for desaturase in *Synechococcus* sp. PCC7942, 554-55
  - genetic manipulation of unsaturation of membrane lipids, 548-55
  - introduction, 542-43
  - lipid biosynthesis, 544-46
  - molecular mechanism of low-temperature photoinhibition regulated by unsaturation of membrane lipids, 555-57
  - overexpression of *plsB* gene and mutation of fatty acid elongase in *Arabidopsis*, 550-51
  - photoinhibition in *Synechocystis* sp. PCC6803, 556-57

- photoinhibition in  
 transgenic tobacco plants,  
 555-56  
 signal transduction pathway  
 to expression of cold-  
 inducible genes, 559  
 temperature acclimation,  
 558-60  
 unsaturation of fatty acids,  
 543-48
- Chimeras**  
 plant development and  
 analysis of developmental  
 mosaics, 360-62  
 combining developmental  
 mutants with mosaic  
 analysis, 362-65  
 combining molecular and  
 mosaic analysis of  
 development, 365-66  
 coordination of cells from  
 different lineages during  
 shoot development, 354-56  
 developmental significance  
 of meristem layers, 370-71  
 generation of  
 developmental mosaics,  
 356-60  
 genetic mosaics and cell  
 death, 369-70  
 historical background,  
 352-54  
 introduction, 352-54  
 mechanisms by which cells  
 may be developmentally  
 coordinated, 368-69  
 mosaic analysis of root  
 development, 366-68  
 natural chimeras, 371-72
- Chitinase**  
 homology-dependent  
 silencing phenomena and,  
 29
- Chlamydomonas reinhardtii*  
 glycolysis and, 200
- Chlamydomonas* sp.  
 and DNA damage and repair,  
 83, 85  
 photosynthetic pigment  
 proteins and, 697, 702
- Chlorella kessleri*  
 membrane transport carriers  
 and, 595, 600-2, 606,  
 608-10, 612-13, 615-16
- Chlorella pyrenoidosa*  
 glycolysis and, 206
- Chloride**  
 tonoplast ion transport and,  
 172
- Chlorophyll**  
 cytochrome *b6f* complex  
 and, 482  
 light control of seedling  
 development and, 228  
 light harvesting regulation  
 and, 655  
 Chlorophyll-carotenoid proteins  
 oxygenic photosynthesis and,  
 685-706
- Chlorophyta**  
 photosynthetic pigment  
 proteins and, 697
- Chlorophytes**  
 photosynthetic pigment  
 proteins and, 685, 697-99
- Chloroplast**  
 cytochrome *b6f* complex  
 and, 477  
 glycolysis and, 187  
 light control of seedling  
 development and, 222, 229  
 lipid-transfer proteins and,  
 636, 647  
 membrane transport carriers  
 and, 605  
 nitrogen assimilation and,  
 574-75  
 photosynthetic pigment  
 proteins and, 685, 687-88  
 protein phosphatases and,  
 102, 119
- Chloroplast thylakoid protein**  
 phosphatase  
 protein phosphatases and, 115
- Chl proteins**  
 photosynthetic pigment  
 proteins and, 685, 689-93
- Chromaffin cells**  
 14-3-3 proteins and, 53, 57
- Chromatin**  
 homology-dependent  
 silencing phenomena and,  
 32-37, 41
- Chromodomain**  
 homology-dependent  
 silencing phenomena and,  
 34
- Chromophytes**  
 photosynthetic pigment  
 proteins and, 685, 698, 700
- Cinnamic acid**  
 glutathione-S-transferases  
 and, 127, 139, 142-43
- Circadian rhythms**  
 light control of seedling  
 development and, 217, 232
- cis*-acting elements  
 dehydration tolerance and,  
 390-93
- Clathrin-coated vesicles**  
 and compartmentation in ER  
 and vacuole, 342
- Cloning**  
 14-3-3 proteins and, 53
- lipid-transfer proteins and,  
 636-38  
 membrane transport carriers  
 and, 598-605  
 wax biosynthesis control and,  
 419-21
- Clusters**  
 chromatin  
 homology-dependent  
 silencing phenomena and,  
 36
- Coarse metabolic control  
 glycolysis and, 195-96  
 sucrose-phosphate synthase  
 and, 431
- Cofactors**  
 glycolysis and, 197-98
- Colechicine**  
 history of, 1, 6
- Cold conditions**  
 membranes and, 541-61
- Coleoptile**  
 light control of seedling  
 development and, 216, 227
- Collaborative research  
 value of, 19
- Combined reaction center  
 photosynthetic pigment  
 proteins and, 689
- Commelina communis*  
 14-3-3 proteins and, 62
- Compartmentation**  
 glycolysis and, 187-90  
 plant cell endomembrane  
 system and, 328
- Concatomeric transgenes**  
 homology-dependent  
 silencing phenomena and,  
 25
- Conformational changes  
 light harvesting regulation  
 and, 664-65  
 membrane transport carriers  
 and, 615
- Conformational flexibility  
 cytochrome *b6f* complex and,  
 490
- Confusion**  
 14-3-3 proteins and, 49
- Coordinated silencing  
 homology-dependent  
 silencing phenomena and,  
 24
- COP gene**  
 light control of seedling  
 development and, 232-35
- Copy DNA (cDNA)**  
 and chilling sensitivity and  
 membranes, 548-50  
 and DNA damage and repair,  
 90  
 14-3-3 proteins and, 51, 53,

- 55  
glycolysis and, 208  
lipid-transfer proteins and, 627, 636-39, 644-46  
membrane transport carriers and, 602  
potato spindle tuber viroid, 30  
protein phosphatases and, 114  
xylogenesis and, 316
- Core complexes  
photosynthetic pigment proteins and, 687-91
- Corn  
glutathione-S-transferases and, 140, 142
- Corynebacterium glutamicum*  
phosphoenolpyruvate and, 290
- Cosuppression  
homology-dependent silencing phenomena and, 27-28, 30
- Cotransporters  
membrane transport carriers and, 595, 614  
tonoplast ion transport and, 169-70
- Cotton  
dehydration tolerance and, 379  
glutathione-S-transferases and, 140  
lipid-transfer proteins and, 637
- Cotton seed trichomes  
and compartmentation in ER and vacuole, 338
- Cotyledon  
and compartmentation in ER and vacuole, 338-39  
glycolysis and, 198, 200  
light control of seedling development and, 217, 221-25, 229  
sucrose-phosphate synthase and, 441
- CP11b protein  
photosynthetic pigment proteins and, 689-91
- CP43 protein internal  
light-harvesting protein  
photosynthetic pigment proteins and, 688
- CP43' protein  
photosynthetic pigment proteins and, 689-91
- CP47 protein internal  
light-harvesting protein  
photosynthetic pigment proteins and, 688
- CPDs  
See Cyclobutane pyrimidine dimers
- CpG nucleotides  
hydrolytic damage and, 78
- c-Raf-1 protein kinase  
14-3-3 proteins and, 57-59
- Crassula argentea*  
phosphoenolpyruvate and, 285
- Craterostigma plantagineum*  
dehydration tolerance and, 379-84, 386, 390-93, 396
- Crop plants  
dehydration tolerance and, 380
- Cross talk  
light control of seedling development and, 231
- Cryptic elements  
homology-dependent silencing phenomena and, 36-37
- Cryptochromes  
light control of seedling development and, 218
- C-terminus  
14-3-3 proteins and, 68-69  
glutathione-S-transferases and, 144
- Cucumber  
light control of seedling development and, 219, 225, 232  
protein phosphatases and, 118
- Cucumis sativus*  
glycolysis and, 199
- Cucurbita maxima*  
dioxigenases and, 252, 254
- Cuticular lipids  
wax biosynthesis control and, 405-7
- Cutin  
lipid-transfer proteins and, 627, 642-43  
wax biosynthesis control and, 417
- Cyanobacteria  
chilling sensitivity and, 541-61  
14-3-3 proteins and, 67  
photosynthetic pigment proteins and, 685, 687-89
- Cyclobutane pyrimidine dimers (CPDs)  
and DNA damage and repair, 81-83, 86-88, 94
- Cyanophora paradoxa*  
photosynthetic pigment proteins and, 702
- Cycloheximide  
protein phosphatases and, 111  
tonoplast ion transport and, 164
- Cyclophilin  
protein phosphatases and, 113, 117
- Cyclosporin A  
protein phosphatases and, 103, 117
- Cytisus purpureus*  
chimeras and, 352
- Cytochrome b6f complex  
aspects of assembly, 494-95  
chlorophyll *a*, 482  
conformational flexibility, 490  
cytochrome *c*<sub>1</sub>, 493  
cytochrome *f*, 484-94  
dimeric structure and activity, 482-483  
docking sites, 489, fluorescence quenching, 669-70  
future research, 676-78  
introduction, 656  
LHCII, 670-72  
molecular environment for regulation of light harvesting, 656-59  
pH-dependent conformational changes, 664-65  
Photosystem II, 656-60  
physiological requirements of regulation, 660  
quenching, 661-76  
requirement for regulation of light harvesting, 659  
xanthophyll cycle, 665-70
- Cytokinins  
light control of seedling development and, 224, 232
- Cytoplasm  
tonoplast ion transport and, 172, 177
- Cytosol  
glycolysis and, 185, 187, 189, 190-96, 198-99, 202-3, 208  
phosphoenolpyruvate and, 273  
protein phosphatases and, 102, 104, 110-11
- CZ1  
14-3-3 proteins and, 67
- ## D
- Darkness  
sucrose-phosphate synthase and, 431, 437-39
- Dark overexpressors  
light control of seedling development and, 229

- Dark repair  
DNA, 87-88
- Datura* sp.  
chimeras and, 353
- Daucus carota*  
dehydration tolerance and,  
386, 391  
lipid-transfer proteins and,  
637  
tonoplast ion transport and,  
168
- Dayflower  
14-3-3 proteins and, 62
- Decarboxylation  
dioxigenases and, 249
- Dedifferentiation  
xylogenesis and, 299
- Defense reactions  
against phytopathogens  
lipid-transfer proteins and,  
627, 643
- Degradation  
homology-dependent  
silencing phenomena and,  
38
- Deguelin cyclase  
dioxigenases and, 249,  
259-61
- Dehydration tolerance  
molecular basis of  
*cis* and *trans*-acting  
elements, 390-93  
crop plants, 380  
degradation and repair,  
384-85  
downregulation of genes,  
395  
future perspectives, 396-97  
gene expression regulation  
during dehydration, 389-93  
genes with upregulated  
expression in response to  
dehydration, 380-88  
genetic model systems, 380  
introduction, 378  
LEA proteins, 385-88  
metabolism, 382  
osmotic adjustment, 382-83  
posttranscriptional control,  
394-95  
promoters in transgenic  
plants, 393  
promoter studies, 390-93  
research strategies, 378  
resurrection plants, 379-80  
second messengers and  
signaling molecules,  
393-94  
seeds, 379  
structural adjustment, 384  
sugars, 388-89  
tolerant systems, 379
- toxin removal, 385  
transgenic plants assessing  
gene function, 395-96
- Dehydrogenation  
dioxigenases and, 248
- Desacetoxyvindoline  
4-hydroxylase  
dioxigenases and, 255
- Desaturation  
dioxigenases and, 245, 248
- DET gene  
light control of seedling  
development and, 232-35
- Detoxification  
glutathione-S-transferases  
and, 129-30, 144
- Development  
chimeras and, 351-72  
and compartmentation in ER  
and vacuole, 338-39  
glycolysis and, 204-5  
lipid-transfer proteins and,  
638-39  
protein phosphatases and, 117  
seedling  
light control of, 215-35
- Dicentric chromosomes  
and DNA damage and repair,  
88
- Differentiation  
chimeras and, 351  
and compartmentation in ER  
and vacuole, 338  
xylem, 299-306, 308-19
- Dihydroflavonol  
dioxigenases and, 251
- Dihydropyridine  
tonoplast ion transport and,  
174
- Dilution  
glycolysis and, 206-7
- Dimer bypass  
and DNA damage tolerance  
pathways, 91-92
- Dimers  
14-3-3 proteins and, 51, 68
- Dimer-tetramer interconversion  
phosphoenolpyruvate and,  
285
- Dinoflagellates  
photosynthetic pigment  
proteins and, 685, 698,  
700-1
- Dioxigenases  
1-aminocyclopropane-1-  
carboxylate oxidase, 255-60  
evolution, 263-64  
gene expression, 260  
introduction, 246  
lipoxygenases, 246-47  
2-oxoacid-dependent  
dioxigenases, 258-60
- alkaloid biosynthesis,  
254-55  
flavanoid biosynthesis,  
247-51  
gibberellin biosynthesis,  
252-54  
protein structure, 262-63  
reaction mechanism, 260, 262
- Dispersed sites  
homology-dependent  
silencing phenomena and,  
36
- Divergence  
14-3-3 proteins and, 66
- Diversity  
14-3-3 proteins and, 49, 56
- DNA binding complexes  
14-3-3 proteins and, 60
- DNA damage checkpoint  
activity  
14-3-3 proteins and, 64
- DNA damage and repair  
DNA damage products, 77  
alkylation damage, 79-80  
hydrolytic damage, 78-79  
ionizing radiation-induced  
damage, 81  
oxidative damage, 80-81  
UV radiation-induced  
damage, 81-85
- DNA damage tolerance  
pathways, 90-91  
damage tolerance  
mechanisms, 93  
dimer bypass, 91-92
- DNA repair pathways  
base excision repair, 85-86  
direct reversal of damage,  
82-85  
double-strand break repair,  
88-89  
excision repair, 85-88  
3-methyladenine  
glycosylase, 86  
nucleotide excision repair,  
87-88  
O<sup>6</sup>-methylguanine  
methyltransferase, 85  
photoreactivation, 82-85  
recombinational repair,  
92-93  
uracil glycosylase, 86  
UV-endonucleases, 86-87  
introduction, 76-77  
organellar genome repair,  
89-90
- DNA-DNA pairing  
homology-dependent  
silencing phenomena and,  
30
- DNA methylation  
homology-dependent

- silencing phenomena and, 25-27, 30, 32-33, 35-37, 39-42
- DNA synthesis
  - xylogenesis and, 307
- Docking clamps
  - 14-3-3 proteins and, 68-69
- Dopamine
  - 14-3-3 proteins and, 51
- Double-strand break repair
  - DNA and, 88-89
- Downregulation
  - dehydration tolerance and, 395
  - protein phosphatases and, 103-4, 107
- Drosophila* sp.
  - and DNA damage and repair, 85
  - 14-3-3 proteins and, 53
  - glutathione-S-transferases and, 132
  - homology-dependent silencing phenomena and, 33, 35, 40-41
  - protein phosphatases and, 105, 108
- Drought stress
  - molecular studies and, 377-97
- E**
  - Echinochloa phyllipogon*
    - glycolysis and, 201, 207
  - Ectopic copies
    - inactivation
      - homology-dependent silencing phenomena and, 24
  - Electrophiles
    - glutathione-S-transferases and, 147-49, 151
  - ELIP proteins
    - photosynthetic pigment proteins and, 701-2
  - Elongase
    - wax biosynthesis control and, 405, 415-17
  - Elongation
    - cell walls of grasses and, 462-65
    - very long chain fatty acid wax biosynthesis control and, 405, 409-13
  - Embryogenesis
    - lipid-transfer proteins and, 627, 642-43
    - membrane transport carriers and, 618
  - EMS
    - See Ethylmethane sulfonate
  - Endomembrane system protein
    - compartmentation
      - aleurain- and storage protein-containing vacuoles in barley aleurone cells, 337-38
    - endoplasmic reticulum role, 340-41
    - endoplasmic reticulum subdomains, 330
    - intracisternal granule formation in ER, 331
    - plant protein bodies, 331
    - future research, 345
    - Golgi complex role, 341
    - introduction, 328-30
    - mechanism of ER-localized plant protein bodies
    - chaperones in protein body formation, 333-34
    - mRNA localization in rice, 335
    - prolamine storage, 334
    - retention by protein-protein interactions, 331-33
  - multiple pathways to vacuole from Golgi
    - biochemical definition of two pathways, 342-44
    - clathrin-coated vesicles, 342
    - smooth dense vesicles, 341-42
    - wheat protein body formation, 344-45
  - peroxidase-containing vacuoles in soybean suspension culture cells and protoplasts, 336-37
  - prevacuolar organelles, 337
  - protein storage vacuoles and vegetative vacuoles in pea cotyledons, 338-39
  - two distinct vacuole types during differentiation of cotton seed trichomes, 338
  - vacuole, 336-37, 339-40
- Endogenous control mechanism
  - genetic
    - homology-dependent silencing phenomena and, 24, 26-29
- Endogenous substrates
  - glutathione-S-transferases and, 127
- Endonucleases
  - and DNA damage and repair, 87
- Endoplasmic reticulum (ER)
  - compartmentation and, 327-35, 340-41, 344-45
  - lipid-transfer proteins and, 647
  - membrane transport carriers and, 607
  - tonoplast ion transport and, 176
- Endosperm
  - 14-3-3 proteins and, 65
  - glycolysis and, 198-201
- Endothal
  - protein phosphatases and, 117
- Energy transfer
  - photosynthetic pigment proteins and, 705-6
- En/Spm* transposable element
  - homology-dependent silencing phenomena and, 36
- Entamoeba histolytica*
  - glycolysis and, 191
- Environmental factors
  - lipid-transfer proteins and, 627, 644-45
  - wax biosynthesis control and, 405, 425
- Enzyme complexes
  - sucrose-phosphate synthase and, 436-37
- Enzymes
  - glycolysis and, 196-97, 202-8
  - wax biosynthesis control and, 415-17
- Epidermal hairs
  - light control of seedling development and, 222
- Epigenetic patterns
  - homology-dependent silencing phenomena and, 30, 33, 37, 42-43
- Epoxidation
  - dioxygenases and, 245, 249
- ER
  - See Endoplasmic reticulum, 340
- Erysiphe graminis*
  - 14-3-3 proteins and, 66
- Escherichia coli*
  - dehydration tolerance and, 385, 396
  - dioxygenases and, 252, 255, 258, 265
  - and DNA damage and repair, 80, 84, 90-91, 93
  - glutathione-S-transferases and, 139
  - glycolysis and, 192, 195
  - membrane transport carriers and, 595, 597-98, 606, 608
  - phosphoenolpyruvate and, 278, 290
  - protein phosphatases and, 115
- Ethylene
  - glutathione-S-transferases and, 147

- light control of seedling development and, 231  
protein phosphatases and, 118  
Ethylene-forming enzyme dioxygenases and, 257-58  
Ethylmethane sulfonate (EMS) alkylation damage and, 79  
Etiolation  
light control of seedling development and, 215, 223  
Etioplasts  
light control of seedling development and, 222  
*Eucalyptus gunnii* xylogenesis and, 312  
*Eucalyptus* sp. chimeras and, 358  
Euchromatin  
homology-dependent silencing phenomena and, 33  
*Euglena* sp.  
photosynthetic pigment proteins and, 697, 701  
Euglenophyta  
photosynthetic pigment proteins and, 697  
Eukaryotes  
14-3-3 proteins and, 52, 59, 62  
homology-dependent silencing phenomena and, 32, 35  
photosynthetic pigment proteins and, 685, 698  
Evolution  
dioxygenases and, 263-64  
14-3-3 proteins and, 49, 56, 66-67  
glutathione-S-transferases and, 131-37  
homology-dependent silencing phenomena and, 24, 42-43  
membrane transport carriers and, 615  
phosphoenolpyruvate and, 289-91  
photosynthetic pigment proteins and, 702  
Exchange translocators  
membrane transport carriers and, 595  
Excision repair  
DNA and, 85-88  
Exo1 protein  
14-3-3 proteins and, 53, 55, 57  
Exocytosis  
calcium-dependent  
14-3-3 proteins and, 53, 57  
Exons  
glutathione-S-transferases and, 138  
ExoS factor  
14-3-3 proteins and, 54, 62  
Expressed sequence tags  
14-3-3 proteins and, 56  
wax biosynthesis control and, 425
- F**  
Facilitators  
membrane transport carriers and, 595, 602, 610, 613, 615  
FAS eukaryotic factor  
14-3-3 proteins and, 54-55  
Fatty acids  
lipid-transfer proteins and, 627, 634-35  
wax biosynthesis control and, 414-15, 418  
Feedback control signals  
homology-dependent silencing phenomena and, 43  
Fertilizers  
homology-dependent silencing phenomena and, 42  
Fine metabolic control  
glycolysis and, 195-96  
FK506  
protein phosphatases and, 117  
FK506-binding protein  
protein phosphatases and, 117  
Flavonoids  
dioxygenases and, 245, 247-51  
Flavanone synthase  
dioxygenases and, 250  
Flavanone-3 $\beta$ -hydroxylase  
dioxygenases and, 250-51  
*Flaveria pringlei*  
membrane transport carriers and, 601  
phosphoenolpyruvate and, 286, 290-91  
*Flaveria trinervia*  
membrane transport carriers and, 601  
phosphoenolpyruvate and, 286, 288-91  
Flavone synthase  
dioxygenases and, 251  
Flavonol  
dioxygenases and, 251  
Flavonol synthase  
dioxygenases and, 250-51  
Flax plants  
homology-dependent silencing phenomena and, 42  
Flowering  
cell walls of grasses and, 445  
protein phosphatases and, 115  
sucrose-phosphate synthase and, 440  
Flux  
glycolysis and, 185, 208  
FMR1  
homology-dependent silencing phenomena and, 41  
Foci  
homology-dependent silencing phenomena and, 37  
Foldback DNA  
homology-dependent silencing phenomena and, 30  
14-3-3 proteins  
signal transduction and, 50  
biochemical activities, 61-63  
biochemical function discovery, 51-52  
cell-specific expression themes, 65-66  
chaperone activity, 61  
discovery, 50-51  
DNA binding complex participation, 60  
early history, 50-51  
evolutionary themes, 66-67  
functional themes, 57-65  
initial characterization, 50-51  
introduction, 50  
naming, 50-51  
period of discovery, 52-56  
physical complexes with kinases, 58-59  
protein kinase-related events, 56-58  
protein-protein interactions, 58-61  
structural themes, 67-69  
summary and comments on function, 63-65  
tryptophan hydroxylase physical association, 60-61  
yeast 14-3-3s, 63  
French bean  
glutathione-S-transferases and, 137, 139, 142  
xylogenesis and, 310  
Fructose-6-phosphate  
glycolysis and, 185  
Fruit  
glycolysis and, 198, 200  
sucrose-phosphate synthase and, 440  
*Fucus* sp.  
chimeras and, 355



Fungi  
 filamentous  
   homology-dependent  
   silencing phenomena and,  
   39-40  
   membrane transport carriers  
   and, 598-605  
   powdery mildew  
   14-3-3 proteins and, 66  
*FUS* gene  
   light control of seedling  
   development and, 232-35  
 Fusicoccin binding protein  
   14-3-3 proteins and, 54-55,  
   62, 64-65  
 FV channels  
   tonoplast ion transport and,  
   172-73

## G

G2 checkpoint  
   and DNA damage and repair,  
   93  
*GA1* gene  
   and DNA damage and repair,  
   81  
 GAC1 protein  
   protein phosphatases and, 104  
 Gal2 transporter  
   membrane transport carriers  
   and, 610  
 Gas chromatography-mass  
   spectrometry  
   gibberellins and, 12, 14-15  
 G-box factors  
   14-3-3 proteins and, 53, 60  
*Gd<sup>3+</sup>*  
   tonoplast ion transport and,  
   174  
 Gel matrix  
   cell walls of grasses and, 445  
 General phenylpropanoid  
   pathway  
   xylogenesis and, 311-12  
 Genes  
   cell walls of grasses and,  
   467-69  
   chimeras and, 351, 356-68  
   dehydration tolerance and,  
   377, 389-96  
   dioxigenases and, 260  
   glutathione-S-transferases  
   and, 127, 147-51  
   homology-dependent gene  
   silencing, 23-43  
   light control of seedling  
   development and, 217-35  
   lipid-transfer proteins and,  
   627, 636-42, 645-46, 648  
   membrane transport carriers  
   and, 598-604, 606, 609-10,  
   617

phosphoenolpyruvate and,  
 273  
 photosynthetic pigment  
 proteins and, 688-89, 700,  
 702  
 sucrose-phosphate synthase  
 and, 433-34, 436, 442  
 wax biosynthesis control  
 and, 405, 410, 412-13,  
 419-24  
 xylogenesis and, 299, 305-6,  
 309-10, 314-16  
 Genome  
   evolution  
   homology-dependent  
   silencing phenomena and,  
   24, 42-43  
   homology-dependent  
   silencing phenomena and,  
   32  
   organellar  
   repair and, 89-90  
*Gerbera hybrida*  
   lipid-transfer proteins and,  
   632, 637-40  
*Gerbera* sp.  
   homology-dependent  
   silencing phenomena and,  
   35  
 Germination  
   and DNA damage and repair,  
   79  
   glycolysis and, 196, 200, 202  
   light control of seedling  
   development and, 219, 221  
   membrane transport carriers  
   and, 618  
 GF14 protein  
   14-3-3 proteins and, 53, 55,  
   63, 65-66, 68  
 Gibberellic acid  
   history of, 1, 10  
 Gibberellin oxidases  
   dioxigenases and, 252-54  
 Gibberellins  
   dioxigenases and, 245,  
   252-54  
   history of, 1, 8-18  
   light control of seedling  
   development and, 231-32  
 Ginkgo  
   and DNA damage and repair,  
   83  
 Glossy mutants  
   wax biosynthesis control  
   and, 405-6, 419-23  
 06-1,3-Glucanase  
   homology-dependent  
   silencing phenomena and,  
   28  
 Glucans  
   cell walls of grasses and,

448-50, 466-67  
 Gluconate  
   tonoplast ion transport and,  
   172  
 Glucose  
   sucrose-phosphate synthase  
   and, 442  
 Glucuronooarabinoxylans  
   cell walls of grasses and,  
   447-48  
 Glut1 transporter  
   membrane transport carriers  
   and, 595, 606  
 Glutathione-S-transferases  
   (GSTs)  
   auxin-binding proteins and,  
   143-45  
   auxins and, 143-45  
   catalytic mechanism, 131-32  
   cellular function  
   detoxification by GSH  
   conjugation, 129-30  
   ligandins, 130  
   protection of tissues from  
   oxidative damage, 130  
   targeting for transmembrane  
   transport, 130  
 classes of plant, 132  
   type I, 138  
   type II, 138  
   type III, 138-39  
   evolution, 131-37  
   future research, 151  
   gene expression regulation  
   mRNA stability, 149  
   ocs elements of GST genes,  
   147-50  
   promoter elements, 149  
   glutathione S-conjugate fate  
   glutathione pump, 149-50  
   metabolism, 150-51  
   herbicide resistance  
   herbicide softeners, 141  
   selective herbicides, 140-41  
   introduction, 128  
   oxidative stress and  
   active oxygen species,  
   145-47  
   ethylene, 147  
   heavy metals, 146-47  
   hydrogen peroxide, 145-46  
   ozone, 147  
   pathogen attack, 145-47  
   salicylic acid, 145-46  
   phenylpropanoids as natural  
   substrates of, 141  
   anthocyanins, 142  
   cinnamic acid, 142-43  
   phytoalexins, 142-43  
 Glycans  
   cell walls of grasses and,  
   445, 450

- Glycerol  
tonoplast ion transport and, 179
- Glycine max*  
dehydration tolerance and, 380  
phosphoenolpyruvate and, 290
- Glycogen synthase  
protein phosphatases and, 107
- Glycolysis  
functions, 186-87  
future research, 208  
introduction, 186-87  
non-plant pathway, 188  
organization  
compartmentation, 187-90  
evolution of cytosolic and plastidic glycolytic isozymes, 190  
flexibility of plant phosphoenolpyruvate metabolism, 192-94  
glycolytic network of plant cytosol, 190-95  
PEP phosphatase, 194  
PPI, 191-92  
transgenic tobacco lacking cytosolic pyruvate kinase in leaves, 194-95  
other functions for glycolytic enzymes, 207-8  
plant pathway, 189  
practical aspects of plant glycolytic enzymology  
errors and artifacts in assays of glycolytic enzymes, 205  
protease and dilution problems, 206-7  
regulation, 195  
coarse metabolic control, 196  
cofactor concentration, 197-98  
control analysis, 196  
fine metabolic control, 196-205, 203-204  
key regulatory enzymes, 196-97  
metabolite effectors, 199-200  
pH variation, 198-99  
reversible associations of metabolically sequential enzymes, 202-3  
reversible covalent modification, 201-2  
specific mechanisms, 197  
subunit  
association-dissociation, 200-1  
tissue-and developmental-specific isozymes of key glycolytic enzymes, 204-5
- Glycolytic bypass theory  
glycolysis and, 194
- Golgi complex  
and compartmentation in ER and vacuole, 327-29, 333, 341-45  
lipid-transfer proteins and, 647
- Gossypium hirsutum*  
lipid-transfer proteins and, 637
- Gossypium* spp.  
dehydration tolerance and, 379
- GpC nucleotides  
hydrolytic damage and, 78
- Grana  
light control of seedling development and, 222
- Graptopetalum paraguayense*  
tonoplast ion transport and, 178
- Grass crops  
glutathione-S-transferases and, 141
- Gravitropism  
light control of seedling development and, 221-22, 227-28
- Green algae  
glycolysis and, 187
- Griseofulvin  
history of, 1, 6-8, 17-18
- Growth  
protein phosphatases and, 117
- GSK-3  
protein phosphatases and, 116
- GSTs  
See Glutathione-S-transferases
- Gus reporter fusion construct  
14-3-3 proteins and, 65
- Guttation drops  
gibberellins and, 12
- H**
- H<sup>+</sup>  
membrane transport carriers and, 595, 598, 603, 611-13
- H<sup>+</sup>-ATPase  
vacuolar  
tonoplast ion transport and, 160-65
- ha-ha assay  
gibberellins and, 17
- Haemophilus influenzae*  
membrane transport carriers and, 597
- Half seed-halo assay  
gibberellins and, 17
- Haploidy  
homology-dependent silencing phenomena and, 28
- Haplopappus gracilis*  
and DNA damage and repair, 83
- Haplopappus* sp.  
and DNA damage and repair, 87
- Heat shock proteins  
glutathione-S-transferases and, 138
- Heavy metals  
glutathione-S-transferases and, 127, 146-47  
tonoplast ion transport and, 179
- Helianthus annuus*  
dehydration tolerance and, 383, 386
- Helix packing  
membrane transport carriers and, 595
- Heparin  
tonoplast ion transport and, 174
- Herbicides  
glutathione-S-transferases and, 127, 140-41
- Heritability  
homology-dependent silencing phenomena and, 25
- Heterochromatic region  
homology-dependent silencing phenomena and, 33
- Heterochromatin  
homology-dependent silencing phenomena and, 34-35, 40-41
- Heterodimerization  
14-3-3 proteins and, 49, 54, 68
- Heterologous expression  
tonoplast ion transport and, 166-67
- Heterozygous transformants  
homology-dependent silencing phenomena and, 29
- Higher plants  
Chi a/b proteins and, 691-93  
lipid-transfer proteins and, 627  
sucrose-phosphate synthase and, 431-41  
tonoplast and, 159-68

- Histones**  
 homology-dependent silencing phenomena and, 34  
**HMG-CoA reductase kinase**  
 protein phosphatases and, 110-11, 119  
**HMR1 proteins**  
 14-3-3 proteins and, 55  
**Homeostasis**  
 tonoplast ion transport and, 159-60  
**Homodimers**  
 14-3-3 proteins and, 49  
**Homology-dependent silencing**  
 introduction, 24  
 silencing phenomena, 31-32  
 antisense-mediated RNA degradation, 31-32  
 antisense RNA production, 38-39  
 autoregulation model, 31  
 cellular mechanisms, 32-42  
 chromatin-mediated regulation of chromatin states, 36-37  
 chromatin-mediated repression in homology-dependent silencing, 35-36  
 chromatin-mediated repression in yeast, 34  
 degradation of threshold levels of RNA, 31  
 DNA methylation, 25  
 heritability and reversion of silencing, 25  
 homologous transgene inactivation, 24-26  
 homology-mediated repression in *Drosophila*, 40-41  
 inactivation mediated by RNA viruses, 29  
 models for, 29  
 mutual inactivation of transgenes and endogenous genes, 27-29  
 paramutation, 26-27  
 position-effect variegation, 33-34  
 posttranscriptional control of gene expression, 37-39  
 regulatory function of chromatin states, 33-37  
 repeat-induced DNA methylation in mammals, 41-42  
 repeat-induced methylation in genome evolution, 42  
 repeat-specific control mechanisms, 39-42  
 repression mediated by polycomb group members, 34  
 requirement for transcription, 28-29  
 RIP and MIP mechanisms of filamentous fungi, 39-40  
 RNA-DNA hybrid role, 30  
 RNA-mediated models for silencing, 30-32  
 RNA stability, 38  
 RNA transport, 37-38  
 silencing mediated via DNA-DNS pairing, 30  
**Homozygous transformants**  
 homology-dependent silencing phenomena and, 29  
**Hordeum vulgare**  
 dehydration tolerance and, 379-80, 383, 386, 390  
 lipid-transfer proteins and, 637  
 membrane transport carriers and, 599  
 tonoplast ion transport and, 165  
 wax biosynthesis control and, 407  
**Hormones**  
 light control of seedling development and, 232  
 protein phosphatases and, 101, 117  
 xylogenesis and, 299-301  
**HP1 heterochromatin protein**  
 homology-dependent silencing phenomena and, 34  
**HS1 proteins**  
 14-3-3 proteins and, 55  
**Human genetic diseases**  
 homology-dependent silencing phenomena and, 41  
**HUP1 transporter**  
 membrane transport carriers and, 595, 606, 608-10, 612-13, 615-16  
**HUP2 transporter**  
 membrane transport carriers and, 606, 610, 615  
**HY4 gene**  
 and DNA damage and repair, 84  
**Hydrogen peroxide**  
 glutathione-S-transferases and, 145-46  
**Hydrolysis**  
 phosphoenolpyruvate and, 275-76, 280  
**Hydrolytic damage**  
 DNA and, 78-79  
**Hydrophobicity**  
 lipid-transfer proteins and, 634-35  
**Hydroxylation**  
 dioxygenases and, 245, 248-49  
**Hyoscyamine 6 $\beta$ -hydroxylase**  
 dioxygenases and, 254-55  
**Hyoscyamus muticus**  
 glutathione-S-transferases and, 135, 143-44  
**Hyoscyamus niger**  
 dioxygenases and, 255  
**Hypermethylation**  
 homology-dependent silencing phenomena and, 30, 32, 40  
**Hypocotyl**  
 light control of seedling development and, 217, 221-26, 231-32  
**Hypoxia**  
 14-3-3 proteins and, 66
- I**  
**IAA**  
 See Indole-3-acetic acid  
 Illegitimate recombination  
 double-strand break repair and, 88  
**Immunophilins**  
 protein phosphatases and, 103  
**Immunosuppressants**  
 protein phosphatases and, 117  
**Indole-3-acetic acid (IAA)**  
 chimeras and, 358  
 glutathione-S-transferases and, 130, 143-44, 151  
 xylogenesis and, 301  
**Inhibitors**  
 protein phosphatases and, 116-19  
**Inositol triphosphate (IP<sub>3</sub>)-gated Ca<sup>2+</sup> channels**  
 tonoplast ion transport and, 176-77  
**Integration**  
 homology-dependent silencing phenomena and, 24-25  
**Intracellular transport**  
 glutathione-S-transferases and, 130  
**Intrachromosomal recombination**  
 homology-dependent silencing phenomena and, 25

- Intracisternal granules  
and compartmentation in ER  
and vacuole, 331
- Introns  
glutathione-S-transferases  
and, 138
- Ion channels  
protein phosphatases and, 117  
tonoplast ion transport and,  
171-73
- Ionizing radiation  
DNA and, 81
- Ion transport  
tonoplast, 159-69
- Ion wells  
membrane transport carriers  
and, 615
- IP<sub>3</sub>  
See Inositol triphosphate
- Isochore  
homology-dependent  
silencing phenomena and,  
35
- Isoforms  
14-3-3 proteins and, 49,  
52-69  
glycolysis and, 199-200  
lipid-transfer proteins and,  
643  
protein phosphatases and,  
105, 107, 109  
tonoplast ion transport and,  
162-63
- Isogenes  
protein phosphatases and, 105
- Isotopes  
phosphoenolpyruvate and,  
276-77
- Isozymes  
glycolysis and, 185, 190,  
204-5
- J**
- Jerusalem artichoke  
xylogenesis and, 307
- Jojoba  
wax biosynthesis control  
and, 409
- Journal impact value  
publication assessment and,  
18
- K**
- K<sup>+</sup>  
membrane transport carriers  
and, 604  
protein phosphatases and,  
118-19  
tonoplast ion transport and,  
172-73, 175
- K<sup>+</sup>/nigericin  
tonoplast ion transport and,  
170
- Kalanchoë blossfeldiana  
tonoplast ion transport and,  
287
- Kalanchoë daigremontiana  
tonoplast ion transport and,  
162, 164, 178
- KAPP  
protein phosphatases and,  
113-14
- Kinase C inhibitor proteins  
14-3-3 proteins and, 55, 57
- Kinetics  
light control of seedling  
development and, 217  
membrane transport carriers  
and, 595, 611-16  
phosphoenolpyruvate and,  
276-77
- Knockout  
enzyme  
glycolysis and, 195
- Kovats Retention Indices  
gibberellins and, 14
- L**
- La<sup>3+</sup>  
tonoplast ion transport and,  
170, 174
- Laburnum vulgare*  
chimeras and, 352
- Lac permease  
membrane transport carriers  
and, 595
- LacY transporter  
membrane transport carriers  
and, 606, 608
- Langsdorffia* sp.  
chimeras and, 371
- Lateral heterogeneity  
photosynthetic pigment  
proteins and, 703
- LCH proteins  
photosynthetic pigment  
proteins and, 692
- LEA proteins  
dehydration tolerance and,  
377, 379, 385-88
- Leaves  
glycolysis and, 194-95, 198,  
200  
light control of seedling  
development and, 221-23  
protein phosphatases and, 115  
sucrose-phosphate synthase  
and, 431, 441-42  
wax biosynthesis control  
and, 407-9
- Leek  
wax biosynthesis control and,  
407
- Lemna gibba*  
light control of seedling  
development and, 231
- Leucoanthocyanidin  
dioxygenases and, 251
- LHCII protein  
photosynthetic pigment  
proteins and, 685, 693-96,  
703-4
- Ligand-gated Ca<sup>2+</sup> channels  
tonoplast ion transport and,  
176-77
- Ligandins  
glutathione-S-transferases  
and, 130, 143
- Light control  
protein phosphatases and,  
118  
of seedling development  
cell autonomy and cell-cell  
interactions, 223  
complexity of light  
responses and  
photoreceptors, 217-19  
cotyledon development and  
expansion, 224-25  
formation of new cell types,  
222-23  
future research, 235  
hypocotyl elongation  
inhibition, 225-26  
introduction, 216-17  
phototropism, 227-28  
plastid development, 228-29  
pleiotropic *COP*, *DET*, and  
*FUS* genes, 232-35  
positive regulators, 229-31  
regulators of light responses  
in seedlings, 229-35  
repressors of light-mediated  
development, 231-35  
responses, 219, 221-29  
seed germination, 219, 221  
sketch of seedling  
photomorphogenesis,  
221-22  
unhooking and separation  
of cotyledons, 223-24
- Light-harvesting antenna  
complexes  
nuclear-encoded  
photosynthetic pigment  
proteins and, 685
- Light-harvesting proteins  
algal, 696-701
- Lignin  
xylogenesis and, 311-14
- Lipid peroxidation  
glutathione-S-transferases  
and, 138, 147

- Lipids  
and chilling sensitivity and membranes, 541, 544-45, 548-59
- Lipid-transfer proteins  
adaptation of plants to environmental conditions, 644-45  
amino acid sequence, 631-32  
biochemical properties assays, 628-29  
purification, 629-30  
specificity for lipids and acyl binding, 630-31  
cutin formation, 642-43  
defense reactions against pathogens, 643  
embryogenesis, 642-43  
future research, 646, 648  
gene expression  
cell-type specificity, 639-41  
cloning, 636-38  
localization of LTPs, 641-42  
organ-specific expression and developmental expression, 638-39  
introduction, 628  
membrane lipid manipulation, 636  
mode of action, 633-36  
novel, 645, 647-48  
proposed biological roles, 647  
symbiosis, 644  
tertiary structure, 631, 633-34
- Liposomes  
lipid-transfer proteins and, 628
- Lipoxygenases  
dioxigenases and, 245-47
- Liver  
mammalian  
glycolysis and, 203
- Loblolly pine  
lipid-transfer proteins and, 637
- Lupinus albus*  
glycolysis and, 193
- Lycopersicon chilense*  
dehydration tolerance and, 380-81, 386
- Lycopersicon esculentum*  
chimeras and, 360, 362  
dehydration tolerance and, 380, 383, 386  
lipid-transfer proteins and, 637
- Lycopersicon peruvianum*  
chimeras and, 362  
xylogenesis and, 303
- Lycopersicon pimpinellifolium*  
chimeras and, 368
- M**
- Macropatches  
tonoplast ion transport and, 179
- Magnoliidae*  
wax biosynthesis control and, 408
- Maize  
dehydration tolerance and, 379  
and DNA damage and repair, 83  
14-3-3 proteins and, 53-55, 60  
glutathione-S-transferases and, 132, 134, 137, 139-43  
glycolysis and, 198  
homology-dependent silencing phenomena and, 35-36  
hydrolytic damage and, 78  
lipid-transfer proteins and, 632, 636-37  
paramutation and, 26  
phosphoenolpyruvate and, 281  
protein phosphatases and, 105-6, 111, 117-19  
sucrose-phosphate synthase and, 431, 435-38, 440  
wax biosynthesis control and, 407-9, 422-23
- Major facilitator superfamily  
membrane transport carriers and, 602, 610, 613, 615
- Malate-selective channels  
tonoplast ion transport and, 177-78
- Mammals  
14-3-3 proteins and, 49, 53-54, 56-59, 61, 65, 67  
homology-dependent silencing phenomena and, 41-42
- Mantionella* sp.  
photosynthetic pigment proteins and, 697
- MAP kinase  
14-3-3 proteins and, 59, 62  
protein phosphatases and, 116
- Marah macrocarpus*  
dioxigenases and, 254
- MCF mitochondrial transport protein  
membrane transport carriers and, 605, 607
- Medicago sativa*  
dehydration tolerance and, 383
- dioxigenases and, 258  
phosphoenolpyruvate and, 290
- Meiosis  
homology-dependent silencing phenomena and, 25, 40
- Membrane biogenesis  
lipid-transfer proteins and, 627
- Membrane fractions  
protein phosphatases and, 102
- Membranes  
chilling sensitivity and, 541-42, 545-61
- Membrane transport carriers  
amino acids, 598-601  
classification according to substrates, 598-605  
fungi, 598-605  
future research, 617-18  
history, 597-98  
inorganic cation and anion transporters, 603-4  
introduction, 595-96  
kinetics, 611-16  
molecular cloning, 598-605  
nomenclature, 596-97  
peptides, 598-601  
regulation of carrier activity and turnover, 616-17  
sugars, 602-3  
topology/structure, 605-11
- Meristems  
chimeras and, 351, 354-56, 370-71
- Mesembryanthemum crystallinum*  
dehydration tolerance and, 380, 382  
glycolysis and, 201  
phosphoenolpyruvate and, 281, 286-91  
tonoplast ion transport and, 162, 164, 168-70
- Mesocotyl  
light control of seedling development and, 216, 232
- Messenger RNA (mRNA)  
chalcone synthase gene, 27  
chimeras and, 365, 368  
and compartmentation in ER and vacuole, 327, 331, 334-35  
dehydration tolerance and, 379, 382, 384-85  
glutathione-S-transferase, 144, 149  
homology-dependent silencing phenomena and, 38

- lipid-transfer protein, 645  
 phosphoenolpyruvate, 287  
 sucrose-phosphate synthase, 441  
 tonoplast ion transport and, 165
- Metabolic transducers  
 glycolysis and, 195
- Metabolism  
 cellular  
   glutathione-S-transferases and, 127, 150-51  
   protein phosphatases and, 110-11, 117  
 dehydration tolerance and, 382  
 downstream  
   nitrogen assimilation and, 581-82  
 glycolysis and, 185, 202-4  
 sugar  
   dehydration tolerance and, 377
- Metabolite effectors  
 glycolysis and, 199-200
- Metabolons  
 glycolysis and, 202
- 3-Methyladenine glycosylase  
 and DNA damage and repair, 86
- 5-Methylcytosine  
 hydrolytic damage and, 78
- O<sup>6</sup>-Methylguanine  
 methyltransferase  
 and DNA damage and repair, 85
- Methylobacterium* sp.  
 glutathione-S-transferases and, 132
- Methyltransferase  
 homology-dependent  
 silencing phenomena and, 30
- Mg<sup>2+</sup>  
 protein phosphatases and, 103, 111-13, 115  
 sucrose-phosphate synthase and, 433  
 tonoplast ion transport and, 172, 175
- Microcystin-LR  
 protein phosphatases and, 110, 115, 117
- Microsome  
 lipid-transfer proteins and, 628  
 tonoplast ion transport and, 177
- Microtubules  
 protein phosphatases and, 114
- MIP mechanism  
 homology-dependent  
   silencing phenomena and, 39-40
- MIP proteins  
 tonoplast ion transport and, 178
- Mismatch repair  
 defective  
   homology-dependent  
   silencing phenomena and, 41
- Mitochondria  
 cytochrome *b<sub>6</sub>f* complex and, 477  
 and DNA damage and repair, 89-90  
 14-3-3 proteins and, 54-55, 61, 64, 69  
 glycolysis and, 189, 193  
 lipid-transfer proteins and, 628, 647  
 membrane transport carriers and, 604-7  
 protein phosphatases and, 102
- Mitochondrial PDC  
 phosphatase  
 protein phosphatases and, 115
- Mitosis  
 14-3-3 proteins and, 63  
 homology-dependent  
 silencing phenomena and, 36  
 protein phosphatases and, 105
- Mn<sup>2+</sup>  
 protein phosphatases and, 105
- Monocotyledons  
 cell walls of grasses and, 454-58  
 light control of seedling development and, 216
- Monooxygenases  
 dioxygenases and, 245-46
- Morphological differentiation  
 homology-dependent  
 silencing phenomena and, 28
- Mosaic analysis  
 chimeras and, 351, 356-70
- Mosaic pattern  
 homology-dependent  
 silencing phenomena and, 41
- mRNA  
 See Messenger RNA
- MSF mitochondrial import  
 stimulation factor  
 14-3-3 proteins and, 54-55, 61
- MSH* gene  
 and DNA damage and repair, 90
- msr* gene  
 glutathione-S-transferases and, 138
- Mugineic acids  
 dioxygenases and, 258
- Multigene families  
 14-3-3 proteins and, 49  
 phosphoenolpyruvate and, 286
- Mung beans  
 glycolysis and, 202
- Mustard  
 light control of seedling development and, 223
- Mutants  
 and chilling sensitivity and membranes, 550-51  
 developmental  
   chimeras and, 351, 362-65  
 lipid-transfer proteins and, 648  
 membrane transport carriers and, 604  
 wax biosynthesis control and, 406, 412-13, 419-23
- Mutual inactivation  
 homology-dependent  
 silencing phenomena and, 27-29
- ## N
- Na<sup>+</sup>  
 membrane transport carriers and, 595, 598, 604, 611-13
- Na<sup>+</sup>/H<sup>+</sup> antiport  
 tonoplast ion transport and, 169-70
- NADH-glutamate synthase  
 nitrogen assimilation and, 577-78
- NADP  
 and DNA damage and repair, 80
- Negative regulators  
 light control of seedling development and, 220
- NEM  
 See *N*-ethylmaleimide, 161
- NER  
 See Nucleotide excision repair
- N*-ethylmaleimide (NEM)  
 tonoplast ion transport and, 161, 166-67
- Neurons  
 14-3-3 proteins and, 51, 65
- Neurospora crassa*  
 homology-dependent  
 silencing phenomena and, 39-40  
 tonoplast ion transport and, 161

Neurotransmitters  
 14-3-3 proteins and, 51  
 Nicks  
 and DNA damage and repair,  
 80-81  
*Nicotiana glauca*  
 chimeras and, 361  
*Nicotiana plumbaginifolia*  
 glutathione-S-transferases  
 and, 118, 136  
*Nicotiana* sp.  
 xylogenesis and, 303  
*Nicotiana sylvestris*  
 homology-dependent  
 silencing phenomena and,  
 28  
*Nicotiana tabacum*  
 chimeras and, 361  
 dehydration tolerance and,  
 390  
 glycolysis and, 194  
 lipid-transfer proteins and,  
 637  
 membrane transport carriers  
 and, 600  
 phosphoenolpyruvate and,  
 290  
 sucrose-phosphate synthase  
 and, 436  
 Nifedipine  
 tonoplast ion transport and,  
 174  
 Nitrate  
 tonoplast ion transport and,  
 161, 164  
 Nitrate reductase  
 homology-dependent  
 silencing phenomena and,  
 29  
 protein phosphatases and,  
 110-11, 118  
 Nitrogen assimilation  
 asparagine synthetase,  
 583-85  
 aspartate aminotransferase,  
 582-83  
 ferredoxin-glutamate  
 synthetase, 578-79  
 glutamate dehydrogenase,  
 579-81  
 glutamate synthetase, 576-79  
 glutamine and glutamate  
 assimilation of inorganic  
 nitrogen into, 571-73  
 downstream metabolism of,  
 581-82  
 glutamine synthetase, 573-76  
 introduction, 570-71  
 light and metabolic control  
 of nitrogen assimilation,  
 585-86  
 NADH-glutamate

synthetase, 577-78  
 primary, 572  
 reassimilation of  
 photorespiratory ammonia,  
 572-73  
 recycled nitrogen, 573  
*nivea* gene  
 homology-dependent  
 silencing phenomena and,  
 27  
 NMR  
 See Nuclear magnetic  
 resonance  
 Nodularin  
 protein phosphatases and, 117  
 Nodules  
 glycolysis and, 198  
 Nomenclature  
 14-3-3 proteins and, 51-52,  
 56  
 Noninformational DNA  
 damage product  
 and DNA damage and repair,  
 90  
 Norway spruce  
 glutathione-S-transferases  
 and, 137, 139  
 N-terminus  
 14-3-3 proteins and, 68-69  
 Nuclear magnetic resonance  
 history of, 12  
 Nucleotide excision repair  
 (NER)  
 DNA and, 87-88  
 Nucleus  
 cellular  
 14-3-3 proteins and, 64  
 glycolysis and, 185  
 photosynthetic pigment  
 proteins and, 685  
 protein phosphatases and,  
 102, 104

## O

Oak  
 wax biosynthesis control  
 and, 407  
 Oats  
 14-3-3 proteins and, 54  
 glutathione-S-transferases  
 and, 140  
 light control of seedling  
 development and, 216  
 tonoplast ion transport and,  
 170  
 ocs elements  
 glutathione-S-transferases  
 and, 147-50  
*Oenothera* sp.  
 14-3-3 proteins and, 53  
 Oilseed rape

lipid-transfer proteins and,  
 636-37  
 Okadaic acid  
 protein phosphatases and,  
 103, 105, 110-11, 115, 117  
 Okra  
 glutathione-S-transferases  
 and, 140  
 Oligomers  
 phosphoenolpyruvate and,  
 273  
 Olive oil  
 wax biosynthesis control and,  
 409  
 Open reading frames (ORFs)  
 14-3-3 proteins and, 63, 67  
 membrane transport carriers  
 and, 598  
 ORFs  
 See Open reading frames  
 Organelles  
 genome repair and, 89-90  
 Origin-recognition complex  
 protein  
 homology-dependent  
 silencing phenomena and,  
 34  
 Orthochromatin  
 homology-dependent  
 silencing phenomena and,  
 36  
*Oryza sativa*  
 dehydration tolerance and,  
 379, 383, 386, 390-91  
 lipid-transfer proteins and,  
 637  
 Osmopriming  
 and DNA damage and repair,  
 79  
 Osmoregulation  
 dehydration tolerance and,  
 382-83  
 sucrose-phosphate synthase  
 and, 431, 439-40  
 tonoplast ion transport and,  
 159-60  
 Oxidation  
 dioxygenases and, 248  
 Oxidative damage  
 DNA and, 80-81  
 Oxidative stress  
 glutathione-S-transferases  
 and, 127, 130, 138, 145-47  
 2-Oxoacid-dependent  
 dioxygenases  
 overview, 245, 247, 249-55,  
 257  
 Oxygen  
 cytochrome b<sub>6</sub>f complex and,  
 477-504  
 photosynthetic pigment  
 proteins and, 685-706

- Ozone  
glutathione-S-transferases  
and, 147
- P**
- Pachyphytum* sp.  
lipid-transfer proteins and,  
637, 639
- parA* gene  
glutathione-S-transferases  
and, 148
- Parachromatin  
homology-dependent  
silencing phenomena and,  
36
- Paragenetic function  
homology-dependent  
silencing phenomena and,  
36
- Paramutation  
homology-dependent  
silencing phenomena and,  
26-27, 30, 40, 43
- Parenchyma cells  
xylogenesis and, 299
- Parsimony analysis  
14-3-3 proteins and, 66  
photosynthetic pigment  
proteins and, 699, 702
- Parsley  
protein phosphatases and, 118
- Particulate fractions  
protein phosphatases and, 102
- Passive transporters  
tonoplast ion transport and,  
159-60
- Pathogens  
attack  
glutathione-S-transferases  
and, 127, 138, 145-47  
protein phosphatases and,  
118  
defense reactions against  
lipid-transfer proteins and,  
627-28, 643
- Pc-G* genes  
homology-dependent  
silencing phenomena and,  
34
- PDA1 gene  
14-3-3 proteins and, 63
- Pea  
and compartmentation in ER  
and vacuole, 338-39  
glutathione-S-transferases  
and, 137, 140, 142  
light control of seedling  
development and, 219, 227  
photosynthetic pigment  
proteins and, 693-96  
protein phosphatases and,  
104, 106, 111, 116, 118  
wax biosynthesis control  
and, 408
- Peanut  
glutathione-S-transferases  
and, 140  
wax biosynthesis control  
and, 407
- Pectic substances  
cell walls of grasses and,  
450-51
- Pelargonium zonale*  
chimeras and, 353
- PEPC  
See Phosphoenolpyruvate  
carboxylase
- PEP phosphatase  
glycolysis and, 194
- Peridenein  
photosynthetic pigment  
proteins and, 685
- Peroxidases  
and compartmentation in ER  
and vacuole, 336-37
- Petunia* sp.  
and DNA damage and repair,  
87  
glutathione-S-transferases  
and, 142-43  
homology-dependent  
silencing phenomena and,  
27-28, 35, 37  
lipid-transfer proteins and,  
635  
paramutation and, 26  
xylogenesis and, 310
- pH  
glycolysis and, 198-99  
light harvesting regulation  
and, 664-65  
tonoplast ion transport and,  
173
- Phagophores  
and compartmentation in ER  
and vacuole, 344
- Phaseolus* sp.  
light control of seedling  
development and, 224
- Phaseolus vulgaris*  
dioxigenases and, 254  
glutathione-S-transferases  
and, 137
- Phenylpropanoids  
glutathione-S-transferases  
and, 141-42
- Pheophytin  
photosynthetic pigment  
proteins and, 688
- Phloem  
light control of seedling  
development and, 223
- Phosphatases  
sucrose-phosphate synthase,  
438-39
- Phosphoenolpyruvate  
glycolysis and, 185, 192-94
- Phosphoenolpyruvate  
carboxylase (PEPC)  
enzymology  
active site structure, 277-78  
carboxylation and  
hydrolysis of PEP analogs,  
275-76  
catalytic mechanism,  
278-80  
isolation, 275  
kinetic and isotopic studies,  
276-77  
future research, 291  
glycolysis and, 193, 204,  
206, 208  
introduction, 274-75  
molecular evolution, 289-91  
multigene families, 286  
posttranslational regulation,  
280  
dimer-tetramer  
interconversion, 285  
proposed regulatory  
mechanisms, 285-86  
redox regulation, 285-86  
regulatory phosphorylation of  
nonphotosynthetic PEPC,  
284-85  
regulatory phosphorylation of  
photosynthetic PEPC,  
281-84
- Ppc and PEPC sequence  
comparisons, 286-87
- Ppc promoter analysis and  
transcription, 287-88
- protein phosphatases and,  
110, 118
- transgenic plants, 288-89
- Phospholipase A2  
14-3-3 proteins and, 55,  
61-62
- Phospholipids  
14-3-3 proteins and, 57, 61,  
64  
lipid-transfer proteins and,  
627-28, 633, 635-36, 647
- Phosphorylase kinase  
mammalian  
plant protein phosphatases  
and, 103
- Phosphorylation  
14-3-3 proteins and, 55, 58,  
60, 68-69  
hexose  
carbohydrate-modulated  
genes and, 526-27  
phosphoenolpyruvate and,  
281-85



- protein phosphatases and, 101-20
- sucrose-phosphate synthase and, 431, 433, 437-40
- Photoconversion
  - light control of seedling development and, 218
- Photoinhibition
  - and chilling sensitivity and membranes, 555-57
- Photomorphogenesis
  - light control of seedling development and, 215-17
  - seedling
    - light control of seedling development and, 221-22
- Photoreactivation
  - and DNA damage and repair, 82-85
- Photoreceptor apoprotein genes
  - light control of seedling development and, 220
- Photoreceptors
  - light control of seedling development and, 217-21
- Photosynthesis
  - and chilling sensitivity and membranes, 541
  - light harvesting regulation and, 655-57, 659-61
  - oxygenic
    - cytochrome *b6f* complex and, 477-504
  - phosphoenolpyruvate and, 431, 440
  - sucrose-phosphate synthase and, 431, 440
- Photosynthetic pigment proteins
  - atomic structure of LHCII, 693-96
  - Chl *a/b* proteins of higher plants, 691-93
  - Chl *a/b* polypeptides of Photosystem II, 692-93
  - early light-inducible proteins and their prokaryotic relatives, 701-2
  - evolutionary relationships in CAB/FCP/ELIP/HLIP family, 702
  - future research, 706
  - introduction, 686-87
  - light-harvesting proteins of algae, 696, 698-701
  - chlorophyta, 697
  - chlorophytes, 697-99
  - chromophytes, 700
  - dinoflagellates, 700-1
  - euglenophyta, 697
  - prasinophyta, 697
  - rhodophytes, 699-700
- macromolecular organization in photosynthetic membrane
  - energy transfer and pigment-protein complexes, 705-6
  - lateral heterogeneity of thylakoid membrane system, 703
  - LHCII trimers, 703-4
  - Photosystem I, 704
  - Photosystem II, 704-5
  - pigment proteins of core complexes
    - combined reaction center and internal antenna in Photosystem I, 689
    - CP43' and prokaryotic CHI *a/b* antennae, 689-91
    - CP47 and CP43 proteins, 688
    - Photosystem II, 687-88
    - Photosystem II reaction center, 687-89
- Photosystem I
  - photosynthetic pigment proteins and, 685, 689, 704
- Photosystem II
  - light harvesting regulation and, 655-60
  - photosynthetic pigment proteins and, 687-88, 692-93, 704-5
- Phototropism
  - light control of seedling development and, 221, 227-28
- pH stat function
  - glycolysis and, 198
- PHYLLIP package
  - photosynthetic pigment proteins and, 699
- Phylloquinone
  - photosynthetic pigment proteins and, 688
- Phylogeny
  - 14-3-3 proteins and, 66
  - glutathione-S-transferases and, 132
  - photosynthetic pigment proteins and, 699, 702
- Phytoalexins
  - glutathione-S-transferases and, 142
- Phytochrome
  - light control of seedling development and, 218-19, 221, 223-25, 227, 230, 232
- Phytotoxins
  - 14-3-3 proteins and, 62
- Picea abies*
  - glutathione-S-transferases and, 137
- phosphoenolpyruvate and, 291
- Pigment proteins
  - photosynthetic, 685-706
- Pinus sylvestris*
  - xylogenesis and, 309
- Pinus taeda*
  - lipid-transfer proteins and, 637
- PKA
  - See Protein kinase A
- PKC
  - See Protein kinase C
- Pisum sativum*
  - dehydration tolerance and, 382-83
  - dioxygenases and, 254
  - glycolysis and, 193, 202, 207
  - light control of seedling development and, 216
  - membrane transport carriers and, 601
  - wax biosynthesis control and, 408
- Plantago major*
  - membrane transport carriers and, 600, 603
- Plantago maritima*
  - tonoplast ion transport and, 169
- Plantago media*
  - tonoplast ion transport and, 169
- Plant protein bodies
  - and compartmentation in ER and vacuole, 331-35
- Plasmalemma
  - See Plasma membrane
- Plasma membrane
  - 14-3-3 proteins and, 64
  - glutathione-S-transferases and, 143
  - glycolysis and, 199
  - lipid-transfer proteins and, 647
  - protein phosphatases and, 104
  - tonoplast ion transport and, 176
  - transfer
    - carbohydrate-modulated genes and, 527-29
- Plastid
  - and chilling sensitivity and membranes, 545
  - and DNA damage and repair, 90
  - glycolysis and, 185, 187, 189-90, 208
  - light control of seedling development and, 217, 222-30

- membrane transport carriers and, 605
- wax biosynthesis control and, 414-15, 418
- Plastocyanin
  - cytochrome *f* and, 488-94
- Plastoquinone
  - photosynthetic pigment proteins and, 688
- Plastosemiquinone
  - cytochrome *b<sub>6</sub>f* complex and, 477
- Pleiotropism
  - light control of seedling development and, 220, 232-33
- Pleurochloris* sp.
  - photosynthetic pigment proteins and, 700, 703
- plsB* gene
  - and chilling sensitivity and membranes, 550-51
- Poaceae
  - cell walls of grasses and, 447-54
- Point mutations
  - and DNA damage and repair, 92
- Pol $\beta$  polymerase
  - and DNA damage and repair, 85
- Pollination
  - and DNA damage and repair, 92
  - protein phosphatases and, 117, 119
  - wax biosynthesis control and, 408
- 3' Poly(A) tail
  - homology-dependent silencing phenomena and, 38
- Polycomb group members
  - homology-dependent silencing phenomena and, 34, 41
- Polygalacturonase
  - homology-dependent silencing phenomena and, 28
- Polyunsaturated fatty acids (PUFAs)
  - and chilling sensitivity and membranes, 551-52
- Polyoma-virus middle tumor antigen
  - 14-3-3 proteins and, 59
- Polysaccharides
  - cell walls of grasses and, 445, 467
  - xylogenesis and, 309
- Polysome
  - homology-dependent silencing phenomena and, 39
- Polytene chromosomes
  - homology-dependent silencing phenomena and, 33
- Pores
  - membrane transport carriers and, 609
- Porphyridium cruentum*
  - photosynthetic pigment proteins and, 700
- Position-effect variegation
  - homology-dependent silencing phenomena and, 33-34, 40
- Positive regulators
  - light control of seedling development and, 220, 229-31
- Postreplication repair
  - DNA, 91
- Posttranscriptional control
  - dehydration tolerance and, 394-95
  - homology-dependent silencing phenomena and, 24-25, 28, 30, 37-39, 43
  - phosphoenolpyruvate and, 280-86
  - protein phosphatases and, 101
- Potato
  - glutathione-S-transferases and, 132, 135, 138, 140, 146
  - glycolysis and, 192, 194, 205
  - protein phosphatases and, 118
  - sucrose-phosphate synthase and, 433, 435, 437, 439, 441-42
- Potato spindle tuber viroid
  - homology-dependent silencing phenomena and, 30
- Potyvirus
  - homology-dependent silencing phenomena and, 29
- PPI
  - glycolysis and, 191-92
- Ppx* genes
  - protein phosphatases and, 114-15
- Prasinophyta
  - photosynthetic pigment proteins and, 697
- Presetting effect
  - homology-dependent silencing phenomena and, 36
- Prevacuolar organelles
  - and compartmentation in ER and vacuole, 327, 336
- Prionobacterium shermanii*
  - glycolysis and, 191
- Procambial initials
  - xylogenesis and, 299, 303-4
- Prochlorococcus* sp.
  - photosynthetic pigment proteins and, 689
- Prochloron* sp.
  - photosynthetic pigment proteins and, 689
- Prochlorothrix* sp.
  - photosynthetic pigment proteins and, 689
- Programmable elements
  - homology-dependent silencing phenomena and, 36-37
- Programmed cell death
  - chimeras and, 369-70
  - xylogenesis and, 299, 316-19
- Programmed senescence
  - glutathione-S-transferases and, 147
- Prokaryotes
  - photosynthetic pigment proteins and, 689-91, 701-2
- Prolamellar body
  - light control of seedling development and, 222
- Prolamines
  - and compartmentation in ER and vacuole, 334
- Prolyl 4-hydroxylase
  - dioxygenases and, 258-59
- Promoter elements
  - dehydration tolerance and, 390-93
  - glutathione-S-transferases and, 149
- Proteases
  - glycolysis and, 206-7
- Protein bodies
  - and compartmentation in ER and vacuole, 344-45
- Protein kinase A (PKA)
  - protein phosphatases and, 112
- Protein kinase C (PKC)
  - 14-3-3 proteins and, 53-54, 57, 67-68
- Protein kinase C (PKC)
  - inhibitor proteins
  - 14-3-3 proteins and, 53
- Protein kinases
  - cascades
  - carbohydrate-modulated genes and, 526-27
  - 14-3-3 proteins and, 54, 56-59
- Protein phosphatases
  - chloroplast thylakoid protein phosphatase, 115
  - inhibitor studies, 116-19

- introduction, 102-3  
mitochondrial  
PDC-phosphatase, 115  
protein phosphatase-1  
catalytic subunit, 105-7  
heterologous expression,  
107-8  
structure and regulation,  
104-7  
protein phosphatase-2a  
catalytic subunit, 109  
cellular metabolism role,  
110-11  
regulatory subunits, 109-10  
structure and regulation,  
108-10  
protein phosphatase-2c  
abscisic acid response gene,  
112-13  
kinase-associated protein  
phosphatase, 113-14  
structure, regulation, and  
function, 111-14  
protein phosphatase-X,  
114-15  
protein tyrosine phosphatase,  
115-16  
Protein-protein interactions  
14-3-3 proteins and, 58-61  
Proteins  
chlorophyll carotenoid,  
685-706  
and compartmentation in ER  
and vacuole, 327-45  
lipid-transfer, 627-48  
Proton translocating pumps  
tonoplast ion transport and,  
160-65  
Proton translocation  
cytochrome *b<sub>6</sub>f* complex  
and, 477, 495-99  
Protoplasts  
and compartmentation in ER  
and vacuole, 336-37  
*Pseudomonas aeruginosa*  
14-3-3 proteins and, 54, 62  
*Pseudomonas* sp.  
dioxygenases and, 259  
xylogenesis and, 301  
*Pseudomonas syringae*  
dioxygenases and, 257  
Psoralens  
and DNA damage and repair,  
77, 87  
PUFAs  
See Polyunsaturated fatty  
acids  
Pyrophosphatase  
vacuolar  
tonoplast ion transport and,  
165-69  
Pyrophosphate  
glycolysis and, 185  
Pyruvate dehydrogenase  
phosphatase  
mammalian  
plant protein phosphatases  
and, 102  
Pyruvate kinase  
glycolysis and, 194-95
- Q**  
Q-cycle mechanism  
cytochrome *b<sub>6</sub>f* complex  
and, 477, 495-500  
QDH  
See Quinate dehydrogenase  
Quelling  
homology-dependent  
silencing phenomena and,  
40  
Quencher  
nonphotochemical  
light harvesting regulation  
and, 655, 658, 661-76  
*Quercus rober*  
wax biosynthesis control  
and, 407  
Quinate dehydrogenase (QDH)  
protein phosphatases and,  
110, 119
- R**  
*rad24*  
14-3-3 proteins and, 54-55,  
63, 66  
*rad25*  
14-3-3 proteins and, 54, 63,  
66  
Raf protein kinase  
14-3-3 proteins and, 54  
Raf-1 kinase  
14-3-3 proteins and, 57  
Rap1 protein  
homology-dependent  
silencing phenomena and,  
34  
*Raphanus sativus*  
dehydration tolerance and,  
383  
Rate-determining steps  
glycolysis and, 196  
RCI proteins  
14-3-3 proteins and, 54-55,  
65  
*RCN1* gene  
protein phosphatases and, 110  
*RecA* gene  
and DNA damage and repair,  
90, 94  
Recombinational repair  
and DNA damage tolerance  
pathways, 92-93
- Red beet  
tonoplast ion transport and,  
172-77  
Redox potentials  
cytochrome *b<sub>6</sub>f* complex and,  
477, 500-2  
phosphoenolpyruvate and,  
285-86  
REKS kinase  
14-3-3 proteins and, 59  
Repeat-specific control  
mechanisms  
homology-dependent  
silencing phenomena and,  
39-42  
Repression  
homology-dependent  
silencing phenomena and,  
34-35, 40-41  
light control of seedling  
development and, 232-35  
Resetting phase  
homology-dependent  
silencing phenomena and,  
25, 43  
Resurrection plants  
dehydration tolerance and,  
379-80  
Retransformation  
homology-dependent  
silencing phenomena and,  
24  
*REV3* gene  
and DNA damage and repair,  
91  
Reversible covalent  
modification  
glycolysis and, 201  
Reversible protein  
phosphorylation  
sucrose-phosphate synthase  
and, 431, 433, 437-40  
Reversion  
homology-dependent  
silencing phenomena and,  
25  
paramutation and, 26  
*Rhizobium* sp.  
lipid-transfer proteins and,  
644  
Rhodophytes  
photosynthetic pigment  
proteins and, 685, 698-700  
*Rhodospirillum* sp.  
tonoplast ion transport and,  
167  
Ribose-gated  $\text{Ca}^{2+}$  channels  
tonoplast ion transport and,  
177  
Rice  
and compartmentation in ER  
and vacuole, 335

- dehydration tolerance and, 379  
 14-3-3 proteins and, 54  
 glycolysis and, 192  
 light control of seedling development and, 216, 232  
 lipid-transfer proteins and, 632, 636-37, 646  
 protein phosphatases and, 118  
 sucrose-phosphate synthase and, 435, 437  
 tonoplast ion transport and, 168-69
- Ricinus communis*  
 dioxygenases and, 259  
 glycolysis and, 193, 196, 198-207  
 lipid-transfer proteins and, 637  
 membrane transport carriers and, 600  
 sucrose-phosphate synthase and, 441
- Rieske iron-sulfur protein cytochrome *b<sub>6</sub>* complex and, 477
- RIP mechanism  
 homology-dependent silencing phenomena and, 39-40
- RLK5 protein kinase  
 protein phosphatases and, 113-14
- RNA-DNA hybrids  
 homology-dependent silencing phenomena and, 30
- RNA-mediated models  
 homology-dependent silencing phenomena and, 30-32
- RNA polymerases  
 homology-dependent silencing phenomena and, 32, 38-39
- RNA stability  
 homology-dependent silencing phenomena and, 38
- RNA transport  
 homology-dependent silencing phenomena and, 37-38
- RNA viruses  
 inactivation mediated by homology-dependent silencing phenomena and, 29
- rolB* transgene  
 homology-dependent silencing phenomena and, 25
- Roots  
 light control of seedling development and, 221-22, 227  
 protein phosphatases and, 115, 119
- Rubisco  
 sucrose-phosphate synthase and, 440
- Ruthenium red  
 tonoplast ion transport and, 170, 177
- Ryanodine  
 tonoplast ion transport and, 174, 177
- S**
- SA-phr1*  
 and DNA damage and repair, 84
- Saccharomyces cerevisiae*  
 and compartmentation in ER and vacuole, 339  
 dioxygenases and, 257  
 and DNA damage and repair, 90-91  
 14-3-3 proteins and, 63  
 lipid-transfer proteins and, 645  
 membrane transport carriers and, 595-96, 598-604, 610, 617  
 protein phosphatases and, 104-5, 107-8, 110  
 tonoplast ion transport and, 161, 166
- Saccharum* sp.  
 phosphoenolpyruvate and, 290
- Salicylic acid  
 glutathione-S-transferases and, 145-46
- Salt  
 tolerance  
 tonoplast ion transport and, 159-60, 169
- Schizosaccharomyces pombe*  
 and DNA damage and repair, 93  
 14-3-3 proteins and, 54, 63  
 membrane transport carriers and, 616  
 protein phosphatases and, 104-5, 107-8, 112
- SCOT columns  
 gibberellins and, 14
- SEC14 protein  
 lipid-transfer proteins and, 645, 647
- Secondary active transporters  
 tonoplast ion transport and, 159-60
- Secondary compounds  
 glutathione-S-transferases and, 127
- Secondary wall thickenings  
 xylogenesis and, 299, 308-9
- Second messengers  
 dehydration tolerance and, 393-94  
 light control of seedling development and, 231
- Seedlings  
 development  
 light control of, 215-35  
 and DNA damage and repair, 88  
 glycolysis and, 192  
 light control of development, 215-35  
 protein phosphatases and, 111  
 tonoplast ion transport and, 168-69
- Seeds  
 and compartmentation in ER and vacuole, 338  
 dehydration tolerance and, 379  
 developing  
 14-3-3 proteins and, 65  
 glycolysis and, 196, 199  
 light control of seedling development and, 219, 221  
 membrane transport carriers and, 618  
 storage  
 and DNA damage and repair, 76-77, 79
- Semiquinone cycle  
 cytochrome *b<sub>6</sub>* complex and, 502-3
- Senecio odoratus*  
 lipid-transfer proteins and, 636
- Sequence divergence  
 homology-dependent silencing phenomena and, 42
- Serine/threonine kinase  
 phosphoenolpyruvate and, 273
- Serine/threonine phosphatases  
 mammalian  
 plant protein phosphatases and, 101-3
- Serotonin  
 14-3-3 proteins and, 51
- Seryl residues  
 sucrose-phosphate synthase and, 431
- SH2 domains  
 mammalian  
 plant protein phosphatases and, 114

- Shade avoidance  
light control of seedling development and, 226
- Shared specializations  
14-3-3 proteins and, 67
- Shoots  
chimeras and, 351, 354-56
- Signal peptide  
lipid-transfer proteins and, 627, 641-42
- Signal transduction  
and chilling sensitivity and membranes, 559-60  
dehydration tolerance and, 393-94  
14-3-3 proteins and, 49-69  
phosphoenolpyruvate and, 273  
protein phosphatases and, 101, 117  
tonoplast ion transport and, 159-60
- Silencing  
genes and, 23-43
- Silene cucubalis*  
glutathione-S-transferases and, 132, 135, 138, 148
- Siliques  
wax biosynthesis control and, 408
- Silver line stress  
wax biosynthesis control and, 409
- Sinapis alba*  
light control of seedling development and, 222, 225
- Site-directed mutagenesis  
cytochrome *b6f* complex and, 490-91  
tonoplast ion transport and, 166-67
- Skotomorphogenesis  
light control of seedling development and, 215
- Smooth dense vesicles  
and compartmentation in ER and vacuole, 341-42
- Snapdragon  
paramutation and, 26
- Sodium accumulation  
tonoplast ion transport and, 159-60
- Sodium chloride  
14-3-3 proteins and, 54
- Solanum laciniatum*  
chimeras and, 369
- Solanum luteum*  
chimeras and, 360, 369
- Solanum melongena*  
dioxigenases and, 260, 264
- Solanum nigrum*  
chimeras and, 353, 368-69
- Solanum oleracea*  
membrane transport carriers and, 600-1
- Solanum tuberosum*  
dehydration tolerance and, 380  
membrane transport carriers and, 600-1  
phosphoenolpyruvate and, 290
- Somatic hybridization  
homology-dependent silencing phenomena and, 30
- Somatic pairing  
homology-dependent silencing phenomena and, 36
- Sorghum* sp.  
and compartmentation in ER and vacuole, 331  
glutathione-S-transferases and, 137, 139, 141  
light control of seedling development and, 219  
lipid-transfer proteins and, 638  
phosphoenolpyruvate and, 278-89  
xylogenesis and, 314
- Sorghum vulgare*  
lipid-transfer proteins and, 637  
phosphoenolpyruvate and, 290  
wax biosynthesis control and, 419, 422-23
- Soybean  
and compartmentation in ER and vacuole, 336-37  
glutathione-S-transferases and, 132, 135, 138, 140, 143-44, 146, 148  
nodules  
glycolysis and, 198  
protein phosphatases and, 118  
sucrose-phosphate synthase and, 436
- Speckles  
homology-dependent silencing phenomena and, 37
- Specific lignin pathway  
xylogenesis and, 312-14
- Spinach  
and DNA damage and repair, 87  
14-3-3 proteins and, 53  
glycolysis and, 200  
lipid-transfer proteins and, 632, 637, 643  
membrane transport carriers and, 603  
protein phosphatases and, 110, 118  
sucrose-phosphate synthase and, 431, 433-35, 437-41
- SSN6* gene  
homology-dependent silencing phenomena and, 34
- Stalling  
and DNA damage and repair, 82
- Stellaria longipes*  
dehydration tolerance and, 386
- Stem loop structures  
homology-dependent silencing phenomena and, 30
- Stems  
protein phosphatases and, 115  
wax biosynthesis control and, 407-8
- Sticky proteins  
14-3-3 proteins and, 58
- Stomata  
14-3-3 proteins and, 62  
light control of seedling development and, 217  
protein phosphatases and, 112  
tonoplast ion transport and, 172
- Storage excretion  
glutathione-S-transferases and, 129-30
- Storage proteins  
and compartmentation in ER and vacuole, 337-38
- Stratifin  
14-3-3 proteins and, 55
- Stringent starvation protein  
glutathione-S-transferases and, 139
- Stroma  
glycolysis and, 198
- Suberin  
wax biosynthesis control and, 417
- Subunit association-dissociation  
glycolysis and, 200-01
- Sucrose phosphate synthase  
enzyme complexes, 436-37  
factors affecting expression, 441-42  
future research, 442  
in vivo, 441-42  
introduction, 432-33  
molecular properties, 434-36  
physical and regulatory properties, 433-35  
protein phosphatases and, 110-11, 118

- reversible protein phosphorylation
    - light dark modulation of SPS activity, 437-39
    - nonregulatory phosphorylation sites, 440
    - osmotic stress, 439-40
    - regulatory phosphorylation site, 437-38
    - SPS kinase, 438
    - SPS protein phosphatase, 438-39
  - sucrose synthesis, 441
  - sugar cycling, 441
  - transgenic plants, 440-41
  - variation among species, 436
  - Sugar beet
    - glycolysis and, 202
    - sucrose-phosphate synthase and, 435, 437, 442
    - tonoplast ion transport and, 172
  - Sugarcane
    - glutathione-S-transferases and, 135, 138
  - Sugar cycling
    - sucrose-phosphate synthase and, 432, 441
  - Sugars
    - membrane transport carriers and, 595, 602-3
    - metabolism
      - dehydration tolerance and, 377, 388-89
    - protein phosphatases and, 118
  - Sunflower
    - protein phosphatases and, 106, 109
  - Supershifting
    - 14-3-3 proteins and, 60
  - Suppressor locus
    - homology-dependent silencing phenomena and, 25
  - Su(var)* genes
    - homology-dependent silencing phenomena and, 33-34
  - SV channels
    - tonoplast ion transport and, 171-72
  - Symbiosis
    - lipid-transfer proteins and, 627, 644
  - Symmetry
    - homology-dependent silencing phenomena and, 26
  - Symporters
    - membrane transport carriers and, 614
  - Synechocystis* sp.
    - and chilling sensitivity and membranes, 550-57
  - Synergy
    - 14-3-3 proteins and, 57
  - Systemic acquired resistance
    - glutathione-S-transferases and, 146
- T**
- Tagging
    - wax biosynthesis control and, 424
  - Tandem repeats
    - inactivation
      - homology-dependent silencing phenomena and, 24
  - Target locus
    - homology-dependent silencing phenomena and, 25
  - Tautomycin
    - protein phosphatases and, 117
  - T-cells
    - 14-3-3 proteins and, 53, 55, 65, 67
  - T-DNA
    - See Transfer DNA
  - Telomere
    - homology-dependent silencing phenomena and, 30, 34
  - Temperature
    - acclimation
      - and chilling sensitivity and membranes, 558-60
  - TFIIH complex
    - and DNA damage and repair, 93
  - Thylakoid membranes
    - light control of seedling development and, 222
    - photosynthetic pigment proteins and, 685, 703
    - proton gradient
      - light harvesting regulation and, 655
  - Tilia tomentosa*
    - wax biosynthesis control and, 409
  - TIP protein
    - tonoplast ion transport and, 178-79
  - Tissue
    - plant
      - glycolysis and, 204-5
  - Tobacco
    - and chilling sensitivity and membranes, 541, 548-50, 555-56
    - and DNA damage and repair, 83, 87
  - 14-3-3 proteins and, 54, 66-67
  - glutathione-S-transferases and, 132, 134, 136, 139, 143, 148
  - glycolysis and, 192, 194-195
  - homology-dependent silencing phenomena and, 25, 28, 30, 40-41
  - light control of seedling development and, 226, 232
  - lipid-transfer proteins and, 632, 636-37
  - protein phosphatases and, 116, 118-19
  - sucrose-phosphate synthase and, 436
  - tonoplast ion transport and, 165, 174
  - Tolerant systems
    - dehydration tolerance and, 379
  - Tomato
    - 14-3-3 proteins and, 54, 60
    - glutathione-S-transferases and, 143
    - glycolysis and, 201
    - homology-dependent silencing phenomena and, 28
    - light control of seedling development and, 219, 223
    - lipid-transfer proteins and, 637
    - protein phosphatases and, 118
    - sucrose-phosphate synthase and, 436, 440
  - Tonoplast ion transport
    - introduction, 160
    - ion channels
      - $\text{Ca}^{2+}$ -selective channels, 173-77
      - cyclic ADP ribose-gated  $\text{Ca}^{2+}$  channels, 177
      - fast-activating channels, 172-73
      - future research, 179
      - $\text{IP}_3$ -gated  $\text{Ca}^{2+}$  channels, 176-77
      - malate-selective channels, 177-78
      - slow-activating channels, 171-72
      - tonoplast intrinsic protein, 178-79
      - voltage-dependent  $\text{Ca}^{2+}$  channels, 173-76
      - voltage-dependent ligand-gated  $\text{Ca}^{2+}$  channels, 176-77

ion cotransporters  
 $\text{Ca}^{2+}/\text{H}^{+}$  antiport, 170  
 $\text{Na}^{+}/\text{H}^{+}$  antiport, 169–70  
 proton translocating pumps  
 isoforms, 162  
 vacuolar  $\text{H}^{+}$ -ATPase,  
 160–65  
 vacuolar pyrophosphatase,  
 165–69  
 “Top down” regulation  
 glycolysis and, 185  
 Topology  
 membrane transport carriers  
 and, 595, 605–11  
*Tortula ruralis*  
 dehydration tolerance and,  
 379  
 Totipotency  
 homology-dependent  
 silencing phenomena and,  
 42  
 TpnA protein  
 homology-dependent  
 silencing phenomena and,  
 37  
 Tracheary elements  
 xylogenesis and, 299–319  
*Tradescantia* sp.  
 protein phosphatases and, 119  
 Trafficking  
 14-3-3 proteins and, 62  
 trans-acting elements  
 dehydration tolerance and,  
 390–93  
 Transgenic plants  
 and chilling sensitivity and  
 membranes, 557–58  
 transi-inactivation  
 homology-dependent  
 silencing phenomena and,  
 24–30, 35, 37  
 Transcriptional control  
 homology-dependent  
 silencing phenomena and,  
 24–25, 32, 43  
 Transcription factors  
 14-3-3 proteins and, 64  
 Transdifferentiation  
 xylogenesis and, 299, 304–7  
 Transfer DNA (T-DNA)  
 double-strand break repair  
 and, 88–89  
 Transgenic plants  
 dehydration tolerance and,  
 377, 395–96  
 sucrose-phosphate synthase  
 and, 440–41  
 Transmembrane helices  
 cytochrome *b6f* complex  
 and, 477  
 membrane transport carriers  
 and, 605–7

Transmembrane transport  
 glutathione-S-transferases  
 and, 130  
 Transposable elements  
 and DNA damage and repair,  
 88, 92  
 homology-dependent  
 silencing phenomena and,  
 25, 36, 40, 42–43  
 Transposons  
 See Transposable elements  
 Transvection  
 homology-dependent  
 silencing phenomena and,  
 40  
 Trichomes  
 and compartmentation in ER  
 and vacuole, 338  
 light control of seedling  
 development and, 221  
 Trifluoroperazine  
 tonoplast ion transport and,  
 171  
*Trifolium* sp.  
 xylogenesis and, 303  
*Triticum aestivum*  
 dehydration tolerance and,  
 380, 386, 390–91  
 membrane transport carriers  
 and, 600  
*Triticum durum*  
 lipid-transfer proteins and,  
 637  
 Tryptophan hydroxylase  
 14-3-3 proteins and, 51–54,  
 56–57, 60–61, 67  
 Tubers  
 sucrose-phosphate synthase  
 and, 433, 439, 441  
*TUPI* gene  
 homology-dependent  
 silencing phenomena and,  
 34  
 Turgor  
 cell  
 tonoplast ion transport and,  
 178  
 Tyrosine hydroxylase  
 14-3-3 proteins and, 51–53,  
 56–57

## U

Ultraviolet (UV)  
 radiation-induced damage  
 DNA and, 81–82  
*UmuC,D* gene products  
 and DNA damage and repair,  
 91  
 Unsaturation  
 and chilling sensitivity and  
 membranes, 541, 543–57

Uracil glycosylase  
 and DNA damage and repair,  
 86  
 UV endonucleases  
 and DNA damage and repair,  
 86–87  
 UV radiation  
 See Ultraviolet radiation

## V

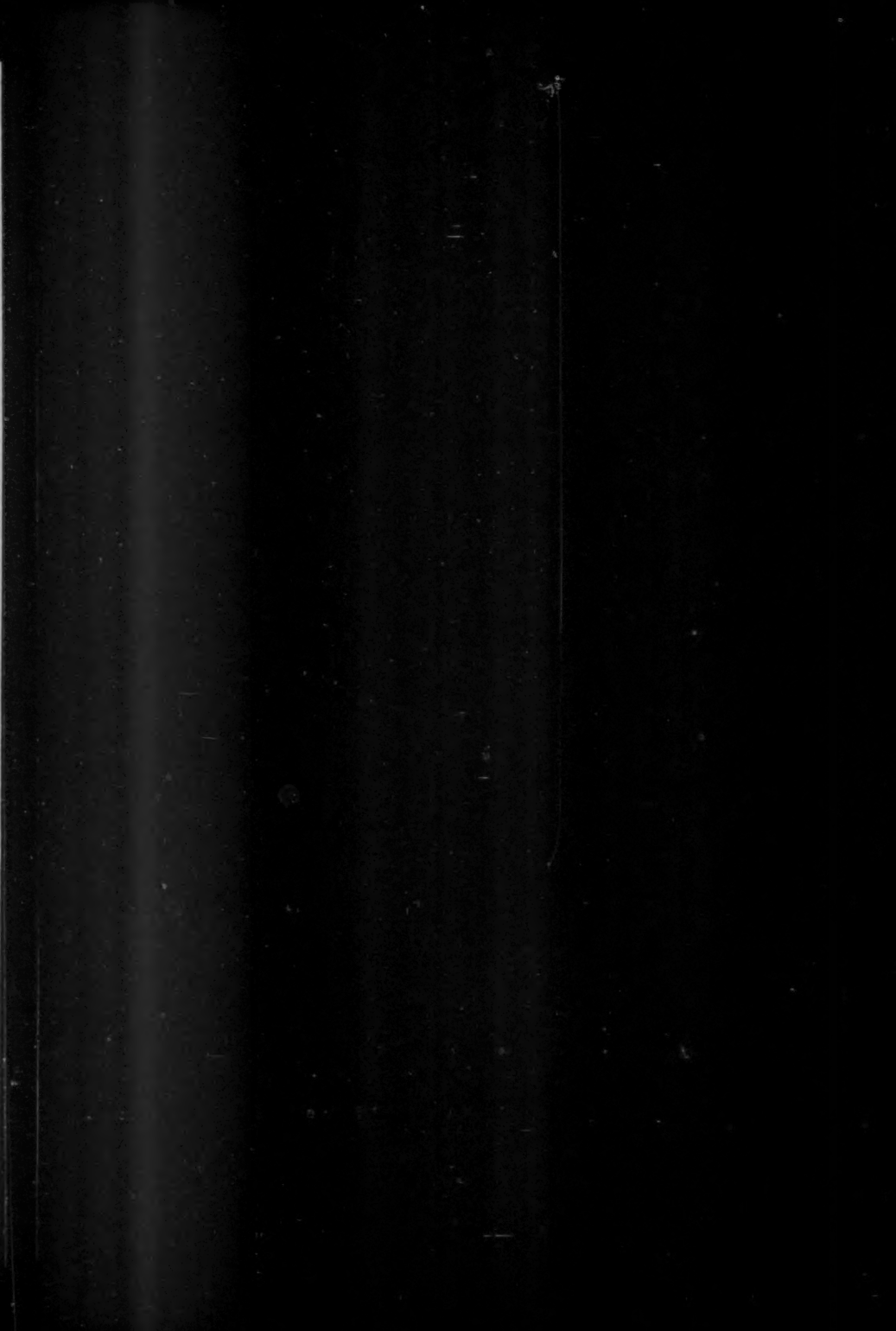
Vacuole  
 compartmentation and,  
 327–30, 334, 336–45  
 glycolysis and, 189  
 membrane transport carriers  
 and, 616  
 tonoplast ion transport and,  
 159–78  
 Vegetative vacuoles  
 and compartmentation in ER  
 and vacuole, 338–39  
 Verapamil  
 tonoplast ion transport and,  
 170, 174  
 Very long chain fatty acids  
 (VLCFAs)  
 wax biosynthesis control and,  
 405, 409–13  
*Vicia faba*  
 glycolysis and, 196  
 phosphoenolpyruvate and,  
 284  
 protein phosphatases and,  
 113, 118–19  
 tonoplast ion transport and,  
 171–72, 174  
*Vigna radiata*  
 tonoplast ion transport and,  
 166  
*Vigna unguiculata*  
 lipid-transfer proteins and,  
 637, 644  
 VLCFAs  
 See Very long chain fatty  
 acids  
 Voltage-dependent  $\text{Ca}^{2+}$   
 channels  
 tonoplast ion transport and,  
 173–76  
*Volvox carteri*  
 membrane transport carriers  
 and, 603

## W

Walking  
 wax biosynthesis control and,  
 424  
 Water chain  
 cytochrome *b6f* complex and,  
 477, 491–92

- Wax biosynthesis control  
*Arabidopsis* sp., 423-24  
 barley, 421-22  
 branch points with other lipid biosynthetic pathways, 413-14  
 composition of plant waxes, 406-9  
 de novo synthesis, 409-10  
 elongase condensing enzyme substrates, 415-17  
 environmental factors, 425  
 expressed sequence tags, 425  
 future research, 425-26  
 glossy mutants and the cloning of wax-related genes, 419-21  
 introduction, 406  
 maize, 422-23  
 movement to outer surfaces, 418-19  
 multiple elongation systems, 410-13  
 partitioning between wax and cutin or suberin, 417  
*Sorghum* sp., 422-23  
 tagging, 424  
 termination of plastidial fatty acid biosynthesis, 414-15, 418  
 very long chain fatty acid elongation, 409-10  
 walking, 424
- Wheat  
 and compartmentation in ER and vacuole, 344-45  
 and DNA damage and repair, 83, 88  
 glutathione-S-transferases and, 132, 134, 137, 139-40, 143, 147-48  
 glycolysis and, 201  
 light control of seedling development and, 231  
 lipid-transfer proteins and, 634, 637  
 protein phosphatases and, 104, 111
- white* locus  
 homology-dependent silencing phenomena and, 33, 40-41
- Wilting  
 14-3-3 proteins and, 62
- Wounding  
 xylogenesis and, 299, 302-3
- X**
- Xanthophyll cycle  
 light harvesting regulation and, 665-70
- Xenobiotics  
 and DNA damage and repair, 77  
 glutathione-S-transferases and, 141-42, 145, 147-48
- Xenopus* sp.  
 and compartmentation in ER and vacuole, 331-32  
 14-3-3 proteins and, 53, 57  
 membrane transport carriers and, 611-13  
 tonoplast ion transport and, 179
- X-ray crystallography  
 14-3-3 proteins and, 49, 68-69  
 lipid-transfer proteins and, 633-34  
 membrane transport carriers and, 617  
 phosphoenolpyruvate and, 278  
 wax biosynthesis control and, 408
- Xylem  
 light control of seedling development and, 223
- Xylogenesis  
 early process  
    $Ca^{2+}$ , 307-8  
   calmodulin, 307-8  
   cell division, 307  
   DNA synthesis, 307  
   early events in transdifferentiation, 304-7  
   factors affecting, 307-8  
   origin and development of procambial initials, 303-4  
   future research, 319  
 initiation  
   plant hormones, 300-2  
   wounding, 302-3  
   introduction, 300  
 late process  
   cell wall protein synthesis, 310-11  
   gene expression, 314-16  
   general phenylpropanoid pathway, 311-12  
   lignin synthesis, 311-14  
   mutants in lignin biosynthesis, 314  
   pattern formation of secondary walls, 308-9  
   polysaccharide synthesis, 309  
   programmed cell death, 316-19  
   specific lignin pathway, 312-14
- Xyloglucan  
 cell walls of grasses and, 450
- Y**
- Yarrowia lipolytica*  
 lipid-transfer proteins and, 645
- Yeast  
 and DNA damage and repair, 90-93  
 14-3-3 proteins and, 53-54, 63  
 glycolysis and, 195  
 homology-dependent silencing phenomena and, 33-35  
 lipid-transfer proteins and, 645  
 membrane transport carriers and, 595-96, 598-604, 610, 616-17  
 protein phosphatases and, 104, 107-8, 110, 112  
 tonoplast ion transport and, 161, 166
- Z**
- Zea mays*  
 dehydration tolerance and, 379, 383, 386, 390-91  
 glutathione-S-transferases and, 137  
 lipid-transfer proteins and, 637  
 membrane transport carriers and, 601  
 phosphoenolpyruvate and, 290  
 wax biosynthesis control and, 408
- zeste* binding sites  
 homology-dependent silencing phenomena and, 40-41
- Zinc finger  
 14-3-3 proteins and, 68
- Zinnia elegans*  
 lipid-transfer proteins and, 637, 642, 644
- Zinnia* sp.  
 light control of seedling development and, 223  
 xylogenesis and, 302, 304-8, 311-14, 316-18
- $Zn^{3+}$   
 tonoplast ion transport and, 174







## CONTENTS

REFLECTIONS OF A BIO-ORGANIC CHEMIST, <i>Jake Macmillan</i>	1
HOMOLOGY-DEPENDENT GENE SILENCING IN PLANTS, <i>P. Meyer</i> and <i>H. Saedler</i>	23
14-3-3 PROTEINS AND SIGNAL TRANSDUCTION, <i>Robert J. Ferl</i>	49
DNA DAMAGE AND REPAIR IN PLANTS, <i>Anne B. Britt</i>	75
PLANT PROTEIN PHOSPHATASES, <i>Robert D. Smith</i> and <i>John C. Walker</i>	101
THE FUNCTIONS AND REGULATION OF GLUTATHIONE S-TRANSFERASES IN PLANTS, <i>Kathleen A. Marrs</i>	127
PHYSIOLOGY OF ION TRANSPORT ACROSS THE TONOPLAST OF HIGHER PLANTS, <i>Bronwyn J. Barkla</i> and <i>Omar Pantoja</i>	159
THE ORGANIZATION AND REGULATION OF PLANT GLYCOLYSIS, <i>William C. Plaxton</i>	185
LIGHT CONTROL OF SEEDLING DEVELOPMENT, <i>Albrecht von Arnim</i> and <i>Xing-Wang Deng</i>	215
DIOXYGENASES: MOLECULAR STRUCTURE AND ROLE IN PLANT METABOLISM, <i>Andy G. Prescott</i> and <i>Philip John</i>	245
PHOSPHOENOLPYRUVATE CARBOXYLASE: A UBIQUITOUS, HIGHLY REGULATED ENZYME IN PLANTS, <i>Raymond Chollet</i> , <i>Jean Vidal</i> , and <i>Marion H. O'Leary</i>	273
XYLOGENESIS: INITIATION, PROGRESSION, AND CELL DEATH, <i>Hiroo Fukuda</i>	299
COMPARTMENTATION OF PROTEINS IN THE ENDOMEMBRANE SYSTEM OF PLANT CELLS, <i>Thomas W. Okita</i> and <i>John C. Rogers</i>	327
WHAT CHIMERAS CAN TELL US ABOUT PLANT DEVELOPMENT, <i>Eugene J. Szymkowiak</i> and <i>Ian M. Sussex</i>	351
THE MOLECULAR BASIS OF DEHYDRATION TOLERANCE IN PLANTS, <i>J. Ingram</i> and <i>D. Bartels</i>	377
BIOCHEMISTRY AND MOLECULAR BIOLOGY OF WAX PRODUCTION IN PLANTS, <i>Dusty Post-Beittenmiller</i>	405

ROLE AND REGULATION OF SUCROSE-PHOSPHATE SYNTHASE IN HIGHER PLANTS, <i>Steven C. Huber and Joan L. Huber</i>	431
STRUCTURE AND BIOGENESIS OF THE CELL WALLS OF GRASSES, <i>Nicholas C. Carpita</i>	445
SOME NEW STRUCTURAL ASPECTS AND OLD CONTROVERSIES CONCERNING THE CYTOCHROME <i>b<sub>6</sub>f</i> COMPLEX OF OXYGENIC PHOTOSYNTHESIS, <i>W. A. Cramer, G. M. Soriano, M. Ponomarev,</i> <i>D. Huang, H. Zhang, S. E. Martinez, and J. L. Smith</i>	477
CARBOHYDRATE-MODULATED GENE EXPRESSION IN PLANTS, <i>K. E. Koch</i>	509
CHILLING SENSITIVITY IN PLANTS AND CYANOBACTERIA: THE CRUCIAL CONTRIBUTION OF MEMBRANE LIPIDS, <i>I. Nishida</i> <i>and N. Murata</i>	541
THE MOLECULAR-GENETICS OF NITROGEN ASSIMILATION INTO AMINO ACIDS IN HIGHER PLANTS, <i>H.-M. Lam, K. T. Coschigano,</i> <i>I. C. Oliveira, R. Melo-Oliveira, and G. M. Coruzzi</i>	569
MEMBRANE TRANSPORT CARRIERS, <i>W. Tanner and T. Caspari</i>	595
LIPID-TRANSFER PROTEINS IN PLANTS, <i>Jean-Claude Kader</i>	627
REGULATION OF LIGHT HARVESTING IN GREEN PLANTS, <i>P. Horton,</i> <i>A. V. Ruban, and R. G. Walters</i>	655
THE CHLOROPHYLL-CAROTENOID PROTEINS OF OXYGENIC PHOTOSYNTHESIS, <i>B. R. Green and D. G. Durnford</i>	685
INDEXES	
Author Index	715
Subject Index	750
Cumulative Index of Contributing Authors, Volumes 37-47	775
Cumulative Index of Titles, Volumes 37-47	778